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ABSTRACT

The socioeconomic problems that arose in Argentina during the 1980s hurt the country's education system--one that historically has been among the most advanced in the region. Resources became scarcer, and the government's expenditures for education fell below regional and other international standards. This report proposes four policies to stop the deterioration of the education sector in Argentina: (1) provide equitable access to primary education of good quality; (2) decentralize secondary education; (3) increase the relevance of higher education; and (4) allocate financial resources more equitably and cost efficiently. Programs designed to meet the objectives of these four policies are described. Several tables of data are included, as well as a 4-page bibliography listing 41 references. Twenty-one annexes provide additional statistical data. (DB)

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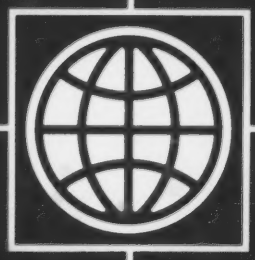

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A WORLD BANK COUNTRY STUDY

Argentina

Reallocating Resources for the Improvement of Education

The World Bank
Washington, D.C.

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COUNTRY DATA

Currency Equivalence

Currency Unit: Austral
US$1.00 = 2.145 Australes (1987)

Fiscal Year

January 1 - December 31

School Year

March - December

Population

Total: 31.1 million (1986)
Growth Rate: 1.6% per year

Literacy Rate

95% (1980)

School System

Primary: 7 years
Secondary: 4-7 years (mode: 5 years)
Higher: 3-6 years

Net Enrollment Rates (as of 1980)

Ages 7-12 : 95%
Ages 13-18 : 53%
Ages 18-24 : 10%

GLOSSARY OF ACRONYMS

CIN	Consejo Inter-Universitario Nacional
CFE	Consejo Federal de Educación
CFI	Consejo Federal de Inversiones
CONET	Consejo Nacional de Educación Técnica
CRUP	Consejo de Rectores de Universidades Privadas
DIGAE	Dirección General de Arquitectura Educacional
ECIEL	Estudios Conjuntos de Integración Económica Latinoamericana
FIEL	Fundación de Investigaciones Económicas Latinoamericanas
FLACSO	Facultad Latinoamericana de Ciencias Sociales
INDEC	Instituto Nacional de Estadística y Censos
MEJ	Ministerio de Educación y Justicia
PAN	Programa de Alimentación Nacional
UBA	Universidad de Buenos Aires
UNDP	United Nations Development Program
UNESCO	United Nations Educational Scientific and Cultural Organization

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PREFACE

This report is based on the findings of studies carried out by the Government of Argentina and the World Bank with the use of funds provided by the Ministerio de Educación y Justicia (MEJ), UNDP, and Loan 2984-AR. The study was carried out under the direction of Mr. Bernardo Kugler, who has prepared this report with Mr. Robert McMeekin. An Argentine team at the Ministry of Education conducted extensive primary research under the coordination of Messrs. Humberto Petrei and Jose Cartas. A list of the papers produced by this team appears at the end of the text. The study was designed during a mission in August 1987 and the main mission took place in April 1988. Assistance support for this report was provided by Ms. Luisa Gomez-Castellanos. Secretarial support of this final version was carried out by Ms. Lien-Hiep Nguyen. The study was completed and discussed with representatives of the Government in December 1988. Subsequent discussions took place with the new administration, which has approved publication by the Bank. Although the data presented are those available at that time, the relevance of the issues presented in this document persists.

EXECUTIVE SUMMARY

Background

1. Argentina has historically had one of the most highly developed education systems in the region. General socio-economic conditions have clearly affected the education sector, and the impact has been negative during the debt and inflation crises of recent years. The capacity of the education system to function has been severely reduced. (1.1)

2. Argentina has had the lowest population growth rates in the region and hence has not faced exceptional pressures for expansion of enrollment, except for two boom periods in higher education enrollment, one in the seventies and the other in the mid-eighties. Education expenditure by the central Government has also grown at a moderate pace. Argentina's public sector was devoting 2.5 percent of GNP to education in the early sixties. More recently the figure has risen to between 3 and 4 percent. Private education expenditures are under 2 percent of GNP. Thus education expenditures are below regional and other international standards. (1.2-1.4)

3. Issues arising in the education sector are usually associated with equitable access to education services. A related issue is federal/provincial relations. The devolution of primary education to the provinces that took place in 1978 is the single most important sector change in several decades, but this change has still not been fully assimilated. The equity issue has different manifestations when considered in the context of primary, secondary or higher education. And the characteristics of other important issues, such as, for instance, capacity to manage a decentralized education system, may differ among provinces depending on their degree of development. (1.5-1.6)

Issues

4. The education sector suffers from poor performance and inadequate resources. There is dissatisfaction with the quality of education, with the central ministry's lack of capacity to manage specific programs, with the lack of direction of some programs, and with the way in which resources from the federal government are allocated. This report focuses on four issues of highest priority: (a) the quality of primary education; (b) the organization and role of secondary education; (c) the explosive growth of higher education; and (d) education sector finance and resource mobilization. (2.1)

5. Quality of Primary Education. There are conflicting views about whether the 1978 devolution of primary education has resulted in a full fledged decentralized subsystem. There is little doubt, however, that the provinces are now responsible for delivering primary education to all children and will retain this responsibility. In this context the main issue confronted by the provinces refers to providing all children with adequate access to primary education of good quality. The main issue confronted by the federal Ministry of Education and Justice (MEJ) is promoting and stimulating the appropriate provincial role in managing primary education. (2.2)

6. With some 95 percent of the school-age population enrolled, Argentina does not face a problem of lack of access to education. The five percent of children not enrolled represent children in remote rural areas, in absolute poverty or with special needs, all of whom require specialized interventions. The more serious problems are repetition and wastage, which are associated with school quality as well as with economic issues outside sectoral control. The primary school completion ratio is 54 percent, which is low in itself, but this average masks the much lower rate (30 percent) in rural areas and in many poorer provinces. The lack of a comprehensive assessment system makes it difficult to analyze the quality issue, but the consensus that quality has deteriorated (or at best remained constant) is consistent with the observed decline in real spending per student. (2.3-2.7)

7. With regard to management of primary level, the provinces have attempted with varying degrees of success to meet the challenge of managing and financing their new responsibilities. The central government has not yet developed an appropriate federal role in managing the subsector. At the heart of the matter is educational finance. Completion ratios, achievement scores and expenditure per student vary directly with provincial per capita income. Additional resources will be required to improve quality in the poorer provinces. There are opportunities for improvements in efficiency and effectiveness. Teachers' workloads are low, as are student/teacher ratios. MEJ can aid provinces in managing more efficiently. An example is an ongoing inventory of physical infrastructure. (2.8-2.11).

8. Organization and Role of Secondary Education. MEJ's main responsibility at present is the delivery of secondary education programs. However, MEJ's share in secondary education enrollment has decreased, while the provinces have increased theirs. Vocationally-oriented secondary schools account for about 60 percent of total enrollment, an exceptionally high share. The rapid growth of secondary school enrollment that has occurred in the past has changed its character; first, secondary education tends to become an education for all; and second, for a majority among those graduating, secondary education is less likely to be their terminal education. In spite of this, secondary education has changed little over the last 20 years. (2.12-2.14)

9. Many of the problems related to deterioration in quality of secondary education are similar to those described (paras. 6-7) for primary education. However, MEJ has only limited ability to address a number of urgent problems or basic issues as, for example, the very low student/teacher ratio. MEJ has conducted a national buildings inventory to assess needs for repair and maintenance. This activity should be extended to the provinces. The National Council of Technical Education (CONET), established in 1957 to provide vocational/technical education, has not been successful in implementing programs different from those offered by secondary vocational schools. In spite of the low rate of return of technical secondary education, CONET receives 11 percent of the federal education budget. (2.15-2.19)

10. The Explosive Growth of Higher Education. Over 300,000 new students were admitted to higher education between 1970 and 1975, and another increase of similar proportions took place between 1983 and 1986. Such expansion has occurred without a corresponding proportional change in subsectoral finance. Neither have organizational and institutional changes taken place. Furthermore, public universities are free and entrance requirements were removed prior to the two explosive periods, without giving any consideration to the economic impact of expanded enrollment. As a result, higher education annual public expenditure per student has been under $500, approximately the same level of unit costs as for primary and secondary education. Leading programs have been particularly endangered by the lack of resources. (2.20-2.21)

11. The existing general elements of higher education policy are insufficient to arrest deterioration. Individual universities follow traditional organization patterns with separate Faculties. Each is responsible for one career, which usually has a rigid study program. Management problems are numerous while efficiency levels are low. These issues appear magnified at Universidad de Buenos Aires (UBA), the largest in the Country. To alleviate pressure over scarce resources, UBA has introduced as an entrance requirement the approval of a one year general courses cycle. A consistent, comprehensive policy for higher education must take into account rates of return to higher education, which currently are at moderate levels, and their economic efficiency and equity implications. (2.22-2.26)

12. Education Finance. The federal government is responsible for a large portion of finance of secondary and higher education, while provincial governments are responsible for almost all finance of primary education. General federal government revenue-sharing transfers account for about 80 percent of total provincial resources. The magnitude of these transfers has been historically a major source of conflict. The share of education expenditures in total public expenditures has hovered around 15 percent over the last 10 years, except for a steady decline in the period 1979-82. This reflects a decline of the education share in the federal budget together with an equivalent increase of the education share in total provincial expenditure. As a proportion of GNP education expenditure is now at about 3.5 percent, which is a moderate level by international and regional standards. In spite of the apparent long-term stability, public expenditure in education has experienced wide short-term fluctuations in the last 25 years. (2.27-2.28)

13. Costs per student for primary education are especially high by regional standards, but the opposite is true in the case of higher education. Wide fluctuations have also been common, but they do not reflect quantitative or even qualitative short-term changes. They are mostly determined by changes in real salaries associated with public sector financial instability. If average salaries are low, as is frequently claimed, high costs are due to inefficiencies in the use of resources such as, for example, having too low student/teacher ratios. (2.29-2.32)

Policy Recommendations

14. The issues raised require decisive action from the federal and provincial governments to arrest the deterioration which has been occurring in the education sector and to improve sector performance even during the ongoing difficult period. The table below shows the set of proposed policies with the respective programs which will help in achieving the desired objectives. (3.1)

POLICY	THE PROGRAMS
Equitable access to primary education of good quality	Finance school lunches and education materials to children of low income families. Establish salary incentives to attract good teachers to poor areas. Assist Cooperadoras. Establish the National Assessment System of Education in MEJ. Establish the National Technical Assistance Service in MEJ. Establish/Strengthen provincial management/ programming capacity (MIS-inventory of physical facilities).
Decentralization of secondary education	Complete inventory of physical facilities and implement investment plan for delivery of an adequate infrastructure to provinces. Prepare the decentralization plan based on experience. Establish federal functions at MEJ (experimental quality improvement program). Modernize and adjust vocational/technical education programs to actual needs, in coordination with users.
Recover relevance of higher education	Strengthen subsector management at the national level. Establish a national independent assessment agency. Modernize the academic organization of universities. Establish integrated provincial systems of higher education.
Allocate finance in accordance with equity and cost-efficiency criteria	Create economic analysis capacity. Extend revenue sharing arrangements, in accordance with national objectives. Establish access of provinces and universities to investment funds. Provide incentives for higher education institutions to mobilize additional resources from the beneficiaries of higher education (students) and non-federal government resources, which may be stimulated by federal contributions given as matching funds.

15. Equitable Access to Primary Education of Good Quality. This policy places less emphasis on physical access to school places than on equity and quality of education. Access problems require actions by the provincial sector authorities and, in many cases, by social welfare agencies. Children of poor families need incentives to stay in school. Three main strategies proposed under this policy are: targeting public resources on the poor, setting standards of quality, and providing technical assistance to the provinces for improving quality and efficiency. (3.2-3.8)

16. Decentralization of Secondary Education. There exists consensus about the desirability of decentralizing secondary education. Some straightforward lessons arising from the primary education devolution in the areas of planning and management can be useful in preparing for a successful and orderly decentralization of secondary education. The provinces are concerned mainly about the additional funds they will need to take over responsibility for the national secondary schools. The strategies proposed to progress towards this end are: preparing the decentralization action program, and reassessing--and establishing the new functions corresponding to--the roles of the MEJ and of the technical/vocational education system. (3.9-3.13)

17. Relevance and Efficiency of Higher Education. A higher education policy should address organizational and institutional problems, the shortage of economic resources and great political sensitivity. Such a policy should arise from explicitly debating and addressing these problems. The debate should lead to the definition of the bases for the strategies of: reassessing the objectives of higher education, structuring and organizing the subsector, and modernizing the universities. (3.14-3.19)

18. Use of Education Finance to Achieve Equity and Cost-Efficiency. The present allocation of finance in the education sector is the result of a series of emergency measures taken in the past to address ever-mounting, conflicting pressures. The outcome is a sector in disarray. The strategies stated in paras. 15-17 should help to improve the impact of the resources spent in the sector. To complement them, financial strategies should emphasize: targeting federal resources for primary education, agreeing on the financial arrangements for the decentralization of secondary education, and mobilizing new resources for higher education. (3.20-3.23)

Programs for the Education Sector

19. The following action programs deal with the issues and problems identified in four areas: the three levels of primary, secondary and higher education, and the cross-cutting issue of sector finance that affects the sector as a whole and its management. Although the proposed programs represent feasible and desirable courses of action, the level of consensus about them within the Country, and their policy readiness, varies considerably. (4.1-4.2)

20. Primary Education. Programs for primary education are addressed to establishing an appropriate federal role, including federal involvement to promote equity in a decentralized system. The following activities are proposed: (i) strengthening provincial education management, with more developed provinces handling the processes directly and MEJ assisting other provinces; (ii) establishing a national system of educational assessment managed by MEJ which includes setting standards and norms, an achievement testing system, and feedback for subsectoral improvement; (iii) establishing a technical assistance function in MEJ; (iv) providing subsidies to finance learning materials for poor children; (v) targeting school lunches to poor children; (vi) establishing incentives for mobilizing good teachers to serve in disadvantaged areas; and (vii) assisting cooperadoras to increase their effectiveness. (4.3-4.10)

21. Secondary Education. The following programs proposed for secondary education are expected to lay the groundwork for decentralization: (i) preparing a decentralization plan, consolidating previous efforts, explicitly dealing with short- and long-term financial issues, including the division of responsibilities between federal and provincial authorities, and the future of technical/vocational education; (ii) establishing federal functions in MEJ as those discussed in para. 20; (iii) completing the inventory of educational facilities; and (iv) implementing investments in infrastructure by both national and provincial authorities. (4.11-4.15)

22. Higher Education. The following higher education programs should be geared toward building consensus and preparing the way for future improvement: (i) strengthening subsector management, including effective planning and governance; (ii) establishing an independent assessment agency; and (iii) modernizing university management to increase efficiency and eliminate duplication. (4.16-4.19)

23. Education Finance. The programs in this section provide the necessary policy and financial support to the programs proposed in paras. 20-22: (i) creating economic analysis capacity in MEJ and at the level of higher education and provincial institutions; (ii) extending revenue-sharing arrangements to give appropriate support to the decentralized sectoral organization; (iii) developing capacity for lending to national sector institutions other than MEJ; and (iv) mobilizing additional resources from sources other than the central government budget, including private users and non-federal government resources, and stimulating them with the existing federal contributions. (4.20-4.24)

An Investment Plan

24. The principal elements in the sector strategy include: decentralization of the remaining service-delivery activities of the MEJ, improvements in management and institutional capacities, qualitative strengthening, efficiency improvements and generation of additional resources for the sector. Education finance should receive high priority to increase sector efficiency and promote equity and growth. To keep public sector spending on education at its current level of 3.5 percent of GNP the annual education budget must grow by approximately $127 million per annum during the period 1990-94 to follow the recommended path. (5.1-5.3)

25. An investment program besides continuing to support activities initiated under the Bank's Social Sector Technical Assistance Loan (2984-AR) should facilitate implementation of the measures proposed in this sector study. Institutional strengthening will require continuing technical assistance. Qualitative improvement, including a national education assessment system, will be a cornerstone. Infrastructure investment will start by upgrading the federal facilities that are to be transferred to the provinces. Capital funds for on-lending to provinces (and higher education institutions) will allow lending operations adapted to Argentina's federal context. And policy based lending can support the government's adoption of feasible, equitable and economically sound policies and practices. (5.4-5.11)

I. BACKGROUND

1.1 Argentina, having been historically the most developed country in the region, has also had the most highly developed education system. This is the result of an educational tradition initiated by President Sarmiento in the 1853 Constitution, which contained a reformulation of education as the key element to overcome poverty and unify the country. While the education system continued to evolve in consonance with the general socioeconomic process, it has also been marked by vicissitudes associated with the difficult times that the country has experienced. A new constitution approved in 1949 made important references to education, but this was abolished in 1955 and the 1853 Constitution reestablished. Reforms for modernizing the structure of education, proposed and approved in 1968-70, were halted in 1971. And the recent economic crisis is having a profound impact on the operative capacity of the education system. The single most important change in several decades, the devolution of primary education to the provinces that took place in 1978, needs important adjustments in order to be consolidated as the foundation of a new education system in Argentina.

1.2 By mid-century Argentina's population had achieved goals that most countries in the region have not achieved even in the present decade (see Table 1.1 and Annex Table 2b). Illiteracy was under 10 percent and the compulsory character of school attendance until age 14 was fairly actively enforced. For the last 50 years, Argentina has had lower population growth rates than other countries in the region and hence has not faced exceptional pressures for expansion of enrollment in its education system, except for two boom periods in higher education enrollment, one in the seventies and another in the mid-eighties (see Table 1.2).

1.3 Consistent with this relatively moderate enrollment expansion and with its moderate economic performance over the last three decades, education finance in Argentina has also evolved at a more moderate pace than in other countries in the region. Argentina's public sector was devoting about 2.5 percent of GNP to education in the early sixties, when most countries in the region were spending under 2 percent. More recently the figure has risen to between 3 and 4 percent in Argentina, while most countries in the region are spending between 4 and 6 percent. Private education expenditures in education are under 2 percent of GNP. Thus, Argentina, in spite of ranking second among Latin American countries in per capita income, is well below the education expenditure standards prevailing both, in the region and in industrial countries (see Annex 1).

1.4 Argentina is a federal republic consisting of 22 provinces and two special divisions, the federal capital and Tierra del Fuego. (The term "provinces" will be used in a broad sense to include the two special divisions as well.) The 1853 Constitution prescribes elected national and provincial governments. There are both national and provincial ministries of education or equivalent institutions (see Annex 21 for a description of the organization of the education sector). Although the degree of economic development varies according to regions and provinces (see Annex 3), regional differences in Argentina's education system are less pronounced than in other countries in the

Table 1.1

Distribution of the Population by Education Attainment: 1980

Age Group	Illiterate Population	Population Attending/Attended School (Percent)											
		Primary			Secondary			Non-University			University		
		Total	Incompl.	Compl.	Total	Incompl.	Compl.	Total	Incompl.	Compl.	Total	Incompl.	Compl.
14-19	3.0 a/	46.1	22.0	24.2	50.5	46.8	3.7	1.1	1.1	-	2.2	2.2	-
20-24	3.2	48.9	17.3	31.5	36.1	20.8	15.3	4.0	2.6	1.4	11.0	10.2	0.8
25-29	3.9	54.8	20.9	33.9	30.9	16.7	14.2	3.0	1.0	1.9	11.4	7.2	4.2
30-34	4.7	60.0	25.5	34.5	28.8	14.7	14.1	2.3	0.6	1.7	9.0	4.0	5.0
35-39	5.2	65.0	29.7	35.4	26.2	13.6	12.6	1.6	0.4	1.2	7.2	2.9	4.3
40-44	5.6	69.6	32.9	36.7	23.7	11.9	11.8	1.1	0.2	0.9	5.6	2.3	3.3
45-49	5.9	75.0	37.3	37.6	19.6	9.7	9.9	1.0	0.2	0.8	4.4	1.7	2.7
50-54	6.6	78.3	41.2	37.1	17.1	8.1	9.0	1.0	0.2	0.9	3.6	1.3	2.3
55-59	7.7	80.3	44.2	36.1	15.7	7.3	8.4	0.9	0.1	0.8	3.0	1.0	2.0
60+	12.2	84.2	50.8	33.4	12.6	5.9	6.7	0.7	0.1	0.6	2.4	0.6	1.8

a/ 15-19 age group

Source: Population Census 1980, Table E.1 and Table E.6.

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Table 1.2

Enrollment Evolution and Annual Growth Rates by Levels Of Education: 1961-1986

	Level of Education							
	Primary		Secondary		Higher			
					Non-University		University	
Year	Enrollment (000)	Annual Growth (%)	Enrollment (000)	Annual Growth (%)	Enrollment (000)	Annual Growth (%)	Enrollment (000)	Annual Growth (%)
1961	-	-	608.0	-	19.0	-	160.0	
	-	-	-	6.4	-	5.6	-	7.2
1966	3,473.0	-	828.0	-	25.0	-	226.0	-
	-	1.1	-	4.2	-	11.0	-	1.2
1970	3,632.0	-	975.0	-	38.0	-	237.0	-
	-	0.9	-	5.0	-	9.6	-	17.8
1975	3,805.0	-	1,243.0	-	60.0	-	537.0	-
	-	1.6	-	1.3	-	9.4	-	-5.8
1980	4,111.0	-	1,327.0	-	94.0	-	398.0	-
	-	3.2	-	4.9	-	14.1	-	12.2
1985	4,812.0	-	1,684.0	-	182.0	-	664.0	-
	-	4.9	-	7.5	-	7.7	-	6.5
1986	5,050.0	-	1,810.0	-	196.0	-	707.0	-

Source: 1961: FIEL (1985).
1966-1986: Education Sector Study a/

a/ The Education Sector Study Team at MEJ organized abundant sector information available at MEJ and also collected some basic information from provincial ministries and universities. In some cases we have further processed such information.

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region. While differences in primary education enrollment rates among provinces or between urban and rural regions are not dramatic (see Table 1.3), primary education completion rates range from the lowest rural ratios of under 20 percent in several provinces to the highest of 74 percent in Buenos Aires. Net enrollment rates in secondary education range from 26 percent in several provinces to 70 percent in Buenos Aires, and in higher education from under 5 percent in several provinces to 23 percent in Buenos Aires.

1.5 Important issues arising with respect to the education system in Argentina are usually associated with equitable access of persons from different income groups to education services and with the question of federal/provincial relations, which historically have been closely related to the overall equity issue as well. Thus, the issue of access to the different education levels in different places has an important equity component. So too do issues related to the quality of education, such as the deterioration that has accompanied sectoral expansion, and qualitative differences between regions, cities and schools. Although some issues are similar for different education levels, the central issue of equity of the education system in Argentina has different manifestations when considered for primary, secondary or higher education. And the characteristics of other important issues may differ between provinces with different degrees of development, such as, for instance, capacity to manage a decentralized education system.

1.6 The three main education levels--primary, secondary and higher--are dealt with separately. Although this study will not analyze the situation of the education sector in each province in detail, when the available information permits, we attempt to differentiate the issues by broad categories of provinces. Main issues are discussed in the next Chapter; policy recommendations appear in Chapter III; specific programs are proposed in Chapter IV; and Chapter V presents an investment plan.

Table 1.3

Net Enrollment Rates by Level of Education and Jurisdiction, 1960 and 1980
(Percent)

Jurisdiction	Primary Education (6-12 years old)		Secondary Education (13-17 years old)		Higher Education a/ (20-24 years old)
	1960	1980	1960 b/	1980	1980
Argentina	86	91	24	42	10
Federal Capital	95	92	56	70	23
Buenos Aires Province	-	92	-	38	3
- Greater Buenos Aires Counties	90	91	18	44	8
- Other Counties	84	92	22	44	9
Catamarca	86	89	16	40	6
Cordoba	89	92	23	47	13
Corrientes	75	87	13	29	9
Chaco	66	82	10	26	7
Chubit	75	82	15	38	4
Entre Rios	74	91	17	41	6
Formosa	70	89	8	26	2
Jujuy	78	90	14	39	3
La Pampa	83	89	16	39	5
La Rioja	85	86	18	33	6
Mendoza	82	89	21	41	9
Misiones	79	89	8	26	4
Neuquen	71	90	10	28	4
Rio Negro	74	85	12	32	3
Salta	77	89	18	36	6
San Juan	83	90	15	45	8
San Luis	83	93	18	40	6
Santa Cruz	82	93	13	40	2
Santa Fe	85	91	28	44	10
Santiago del Estero	81	90	12	26	5
Tierra del Fuego	74	93	19	45	1
Tucuman	80	92	17	39	13

a/ Not available before 1980.
b/ 13-19 years old group.

Source: 1960: Beccaria and Riquelme (1985).
1980: Estimated from Population Census 1980.

II. ISSUES

2.1 In broad terms, although Argentina's education system is one of the best in Latin America, the sector suffers from poor performance and inadequate resources. More specifically, there is dissatisfaction with the quality of education, with the central ministry's lack of capacity to manage specific programs, with the lack of direction of some programs, and with the way in which resources from the federal government are allocated. These issues are felt with varying degrees of intensity at different education levels. Though there are many issues affecting the sector, this report focuses on only four, which are of the highest priority: (i) the quality of primary education; (ii) the organization and role of secondary education; (iii) the explosive growth of higher education; and (iv) education sector finance and resource mobilization. The fourth area is specific to particular education levels but also cuts across levels and, to some extent, transcends the sector. This Chapter discusses these issues, while later Chapters consider strategies for dealing with each.

A. Quality of Primary Education

2.2 Responsibility for primary education was transferred to the provinces in 1978. There are conflicting views about the extent to which a decentralization in the full sense took place, but there is little doubt that the provinces are now responsible for delivering primary education to all children and will retain this responsibility. In this context, the main issue confronted by the provinces refers to providing all children with the adequate access to primary education of good quality. And the main issue confronted by the federal government is how to promote and stimulate the appropriate provincial role in managing primary education.

2.3 Access. Argentina has the highest enrollment ratios in the region (see Table 2.1 and Annex 1). Although only 63 percent of six-year olds enroll in grade one of the seven-year compulsory primary cycle, some 95 percent of the 7-12 age group corresponding to primary schooling is enrolled. The remaining 5 percent represents enrollment problems among the extremely poor in remote areas, or of special cases requiring carefully focused programs, with components that transcend the scope of the education sector.

2.4 Continuity. Dropping out from the system begins to be a problem at age 13 (13 percent leave school) and becomes serious for 14-year olds (25 percent). Only 54 percent of entrants were completing primary education in 1980, which means that, although Argentina does not appear to have a serious coverage problem, a substantial problem of repetition and wastage exists. The rough indicator of primary school gross completion rates shows a sustained improvement taking place until 1980, mostly due to lower drop-out rates without apparent improvements in repetition rates. In spite of this improvement, the 54 percent completion rate for the country as a whole includes a very low 30 percent of the rural areas and masks much lower rates in the majority of provinces. Several provinces, in fact, show primary education completion rates similar to those

Table 2.1

Enrollment Ratio by Age and Level of Education: 1960-1980
(Percent)

Age	Primary		Secondary		Higher	
	1960	1980	1960	1980	1960	1980
6	58	63				
7	83	95				
8	88	96				
9	90	96				
10	90	96				
11	89	96				
12	84	93				
13	53	55	20	31		
14	28	28	29	47		
15			29	49		
16			26	43		
17			21	40		
18			12	22		
19					5	11
20					4 a/	12
21						12
22						10
23						9
24						8

a/ 20-24 age group.

Source: Estimates based on the Population Census, 1960 and 1980.

prevailing in other Latin American countries with low incomes (see Table 2.2 and Annexes 1 and 4). Repetition and wastage are related to the quality of the system and take a heavier toll on the poor by discouraging them to continue their education process. For example, on the one hand, textbooks and other learning materials have to be bought by parents. On the other hand, evaluations of school nutrition programs, while showing some marginal increases in attendance patterns of students, have failed to show any effects of attracting children of poor families into the school system, or of reducing their drop-out rates.

2.5 Quality Assessment. Internal efficiency measures such as the completion rates presented in para. 2.4 provide a general impression of the quality prevailing in Argentina's primary education. In addition, besides the usual periodic classroom evaluations made by individual teachers, some more general evaluations have been conducted in several provinces but not in a systematic manner. One of the most comprehensive evaluations was carried out in the municipality of Buenos Aires in 1985. It found that achievement of curricular goals was poor (see Table 2.3 and Annex 5) and that the system lacked the dynamism needed to introduce successful changes in accordance with recent pedagogical advances.

2.6 A similar, sample-based evaluation of the degree to which seventh grade students had achieved curricular goals was conducted in Cordoba in 1983. Here again, the average scores were quite low: 52 percent in language, 42 percent in mathematics and 53 percent in social sciences on criterion referenced tests. Students in private schools scored slightly higher than public school students; schools in rural areas had lower scores than those in the provincial capital and its outskirts. Even the best students did not score above 90 percent on tests designed to assess whether they had gained the skills the subject curricula purported to teach.

2.7 Consensus prevails that the quality of education has deteriorated or at best remained constant without any improvements during the last decade. However, only recently are studies becoming available on the subject. The reduction in resources available to the subsector and their inefficient utilization provide supporting evidence in this direction. However, the lack of a comprehensive system of educational assessment contributes to obscuring the issue and impedes drafting the support required for implementing concrete proposals that would arrest the decay. Other indicators of quality are also of limited use. Information collected by the Statistics Office of MEJ was adequately processed until 1980. However, due in part to the decentralization of primary education and in part to MEJ staffing problems, processing of statistical data has deteriorated and even stalled. Only recently is some recovery being made.

2.8 Management. The provinces have confronted issues related with adequate management of quality education and the federal government has not assumed yet an appropriate role in the management of the subsector. There has been no comprehensive evaluation of the impact of the decentralization process.

Table 2.2

Primary Education Completion Ratios by Jurisdiction: 1974-1980 Cohort
(Percent)

Jurisdiction	Total	Urban	Rural
Argentina	53.70	62.50	30.00
Federal Capital	74.20	74.20	
Buenos Aires	69.70	70.10	62.10
- Greater Buenos Aires Counties	68.80	68.80	61.90
- Other Counties	71.10	72.60	62.10
Catamarca	41.80	55.70	29.90
Córdoba	55.10	58.90	38.80
Corrientes	30.00	39.70	21.10
Chaco	30.60	44.50	16.30
Chubut	41.70	53.70	34.50
Entre Rios	42.80	50.70	28.30
Formosa	35.40	53.00	25.20
Jujuy	41.30	56.20	21.80
La Pampa	53.50	60.00	23.80
La Rioja	44.90	54.40	34.40
Mendoza	57.20	67.10	39.40
Misiones	30.00	44.70	21.30
Neuquen	38.00	47.40	21.40
Rio Negro	44.60	49.00	32.10
Salta	41.90	56.80	22.20
San Juan	51.00	51.30	50.40
San Luis	42.30	51.50	30.40
Santa Cruz	51.90	54.30	15.20
Santa Fe	58.50	63.00	35.20
Santiago del Estero	33.00	45.60	26.60
Tierra del Fuego	63.30	66.60	7.70
Tucumán	51.60	65.90	36.20

Source: Ministry of Education: Retención y Desgranamiento Cohorte 1974-1980, Educación Primaria Común

Table 2.3

Primary Education Achievement of Objectives
by Grade and Curriculum Area [a/]

Curriculum Area	3rd Grade	5th Grade	7th Grade
Language		51.5	46.4
Mathematics	46.5	43.2	41.7
Social Sciences	52.0	43.5	42.0
Natural Sciences	40.8	40.9	40.9

a/ Percentage of students achieving the objectives in each curriculum area.

Source: Municipalidad de Buenos Aires: "El Perfil de los Aprendizajes Segun el Nivel de Logro de los Objetivos Curriculares, 1984-1985."

However, all parties involved with the process indicate that in some provinces, especially the more-developed, the benefits of the decentralization were great enough to outweigh the loss of federal support for primary education. Partial evidence available supports this opinion. Per capita gross product figures by province for 1970 and 1980 provide one indicator of the relative degree of development of the provinces (see Annex 3). Nine provinces whose 1980 per capita incomes were under 3500 Australes of 1987 can be considered low income provinces: Catamarca, Corrientes, Chaco, Formosa, La Rioja, Misiones, Salta, San Juan, and Santiago del Estero. More affluent provinces such as Buenos Aires, Cordoba, Entre Rios, Mendoza, Rio Negro, and Santa Fe (as well as the capital) have impressive education sector organizations. Available indicators for student achievement (gross completion rates) and for expenditure per student at the provincial level, show high (correlation coefficients of .57 and .76, respectively) with provincial per capita income. In consequence, improving quality of primary education and reducing drop-out rates in the provinces with lowest income levels requires, besides better using the existing resources, mobilizing more financial resources.

2.9 Managing teacher staff and their career is a specially complex issue. Low teacher morale, reduced time teachers spend in the classroom, and slowness in adopting more modern teaching techniques are cited as the main causes of deterioration or stagnation in quality of primary education. Teacher salaries are low, a factor that is related to the shortness of the class day. Teachers usually work 3 1/4 hours net (and as low as 2 hours in some cases); perhaps the lowest teacher workload in the world. Although Argentina has a widely-recognized capacity for research in pedagogy, it is only in exceptional cases that teachers actually apply curriculum updates and new methodologies.

2.10 Better management of teacher staff requires giving particular attention to the student/teacher ratio. Argentina's average of 19 students per teacher is one of the lowest in the world (see Annex 6). Average class size, on the other hand, is approximately 30. This apparent anomaly is because of the high number of special and substitute teachers. While this phenomenon has important budgetary implications, there are no studies showing the impact of class sizes on actual school achievement and quality. The teachers' strike of April-May 1988 was a painful reminder that financial problems stemming from decentralization continue in most provinces. The crisis confronted in 1988, caused by teachers claims for higher salaries, required federal government intervention in an area which, in theory, is now virtually of the exclusive responsibility of the provinces.

2.11 While having had to assume, on the one hand, functions beyond its competence, MEJ has been unable, on the other hand, due to its reduced staff, to fully assume a "federal" role vis-a-vis primary education by providing coordination and planning, quality control and support to the provinces in methodological terms. MEJ has developed expertise in the areas of physical infrastructure inventories and decentralized support to the "cooperadoras", that should be transferred to the provinces. Although it is not possible to gather complete information about physical infrastructure, information available for some

provinces indicates that this does not represent an urgent problem. Scarcity of classrooms in some areas has been solved through the use of multiple shifts. In order to provide appropriate maintenance to a deteriorating infrastructure, as well as to design investment programs, it is necessary for all provinces to conduct and update inventories as is done in some provinces (e.g., Santa Fe, Buenos Aires). In some schools maintenance is financed with parents' contributions to the "cooperadoras". These parent-teacher community cooperatives have proved to be the only source of finance for important non-salary expenses in schools during the financial crisis of recent years. The role that the "cooperadoras" play has been believed substantive, yet they vary greatly in economic strength and community support. Figures available at MEJ though apparently underestimate their total contribution (see Annex 7), give an adequate idea of their roles. There are no public fund contributions to these school cooperatives, thus schools attended by children in low-income communities usually receive less support.

B. Organization and Role of Secondary Education

2.12 MEJ's main responsibility at present is the delivery of secondary education programs. The regular secondary education cycle is five years long, but there are special fields requiring six or seven years. MEJ's share in secondary education has decreased while the provinces have increased theirs. Still, MEJ is serving around one million secondary education students (800,000 in 1986). As a point of comparison, this is of the same order of magnitude as the number of national primary school students transferred to the provinces in 1978. Private secondary education is moderately important and receives public subsidy to pay regular teachers' payroll. Its enrollment has been about one-third of the total, with a slowly decreasing trend, while provincial schools have been increasing their share of enrollment to about one-fourth of the total (see Annex 8). Vocationally oriented secondary schools are especially important, as they account for about 60 percent of total enrollment, the remainder being regular schools (bachillerato). The percentage share of vocational schools among the national secondary schools is even larger at about 67 percent. National technical schools have a reputation for high quality.

2.13 The high rates of growth in secondary school enrollment in Latin America have changed the character of the education system. Argentina experienced important quantitative changes before other countries in the region, because it was among the first countries achieving virtually universal coverage of primary education. The changes implied for secondary education are two-fold: first, secondary education will tend to become an education for all children, not for a minority elite; and second, for a majority among those graduating, secondary education is less likely to be their terminal education. In spite of the effects of these changes upon the very nature of the system, secondary education has changed little in Argentina over the last 25 years.

2.14 Enrollments. Table 2.4 shows secondary education enrollment figures and Annexes 9 and 10 show completion rates. Net enrollment in secondary education was around 40 percent of the age group (the gross enrollment rate was

Table 2.4

Secondary Education Enrollment by Jurisdiction: 1980

Jurisdiction	Enrollment		Population	Enrollment	
	Total (000) (1)	13-17 Years (000) (2)	13-17 Years (000) (3)	Gross Ratios (%) (1/3)	Net Ratios (%) (2/3)
Argentina	1,333	996	2,363	56	42
Federal Capital	168	122	175	96	70
Buenos Aires	504	383	1,052	48	36
- Greater Buenos Aires Counties	243	554	59	44	
- Other Counties	179	140	316	57	44
Catamarca	10	8	20	50	40
Cordoba	125	97	207	60	47
Corrientes	28	21	72	39	29
Chaco	27	20	77	35	26
Chubut	11	9	24	46	38
Entre Rios	41	35	86	48	41
Formosa	12	9	34	35	26
Jujuy	23	16	41	56	39
La Pampa	8	7	18	44	39
La Rioja	9	5	15	60	33
Mendoza	54	41	101	53	41
Misiones	23	17	66	35	26
Neuquen	10	7	25	40	28
Rio Negro	16	12	37	43	32
Salta	36	25	69	52	36
San Juan	26	20	44	59	45
San Luis	10	8	20	50	40
Santa Cruz	5	4	10	50	40
Santa Fe	112	87	198	57	44
Santiago del Estero	23	16	61	38	26
Tierra del Fuego	1	0.76	2	59	45
Tucuman	51	36	93	55	39

Source: Estimates based on Population Census, 1980.

56 percent) in 1980, having increased from approximately 25 percent in 1960. Variations among provinces are high: a few provinces have net enrollment rates as low as 26 percent, while the figure is 70 percent in the municipality of Buenos Aires. Completion rates for the country as a whole do not show any noticeable trend, having hovered around 60 percent since the fifties. The ranking of provinces in terms of enrollment ratios shows the same patterns as for other indicators.

2.15 Quality and Management. Many of the problems related to deterioration in quality of secondary education are similar to those described (paras. 2.5-2.6) for primary education. While some of the provinces have partially overcome qualitative problems of primary education, the lack of resources at the national level has limited MEJ's ability to address a number of urgent problems. Only recently has MEJ initiated an inventory of physical facilities in its secondary schools that will provide data on the condition of these schools. The recent social sector loan will finance pilot programs and studies to assess educational quality. Teacher training programs are virtually nonexistent since the economic crisis, although the high average professional level of secondary teachers limits the damage.

2.16 The very low student/teacher ratio of eight reflects frequent use of part-time teachers. When teacher workload is taken into account (see Annex 11) the number of students per full-time equivalent teacher increases to 17. This is an example of the need to improve statistics and their use by management to properly assess the behavior of key elements of the system.

2.17 Vocational Education. A National Council of Technical Education (CONET) was established in 1957 to provide vocational/technical education. Besides regular national budget funds, CONET receives the proceeds of an industry payroll tax, similar to other Latin American vocational training institutions. However, CONET has not been successful in implementing vocational training programs significantly different from those offered by secondary vocational schools.

2.18 CONET's share of the federal education budget is 11 percent. No other country in the region has a technical education program of the size of Argentina's. The social rate of return to investment in secondary education in Argentina is currently depressed at 6.4 percent (see Table 2.5). Graduates of vocational schools, whether technical or commercial, do not receive any wage premiums over regular secondary school graduates, in spite of the higher opportunity costs and direct training costs of the vocational alternative. Thus, rates of return are even lower than for general secondary education. CONET is studying ways to improve the relevance of its programs.

2.19 Infrastructure. Infrastructure problems in provincial secondary schools and in CONET's institutions include both deterioration due to lack of maintenance, and lack of clear assessments of current and future needs for new buildings. The division of responsibilities between the federal government and the provinces complicates the design of a comprehensive investment program. In

Table 2.5

Rates of Return to Education
(Percent)

Education Level	Private	Social
Primary (vs. less than primary)	30.0	16.7
Secondary (vs. primary)	9.0	6.4
University (vs. secondary)	11.0	7.1

Source: Kugler, B. and Psacharopoulos, G. (1988).

addition, most of the equipment in CONET's schools, as well as provincial technical schools has become obsolete. MEJ has conducted a sampling of national buildings to assess needs for repair and maintenance, and possibilities for improving utilization. This activity should be completed and extended to the provinces in order to provide basic information for setting investment priorities.

C. The Explosive Growth of Higher Education

2.20 Over 300,000 new students were admitted in to higher education between 1970 and 1975 more than doubling the enrollment. Another huge increase of almost 300,000 new students took place between 1983 and 1986 (see Table 2.6). These figures contrast with the reduction that took place in the period 1975-82, and indicate what can truly be described as explosive growth of the nation's higher education system, which used to be (and might still be) the best developed in the region. Argentina has been the only country in the region which has produced two Nobel Prize winners in science, and the 1918 Córdoba reform initiated the movement toward autonomous governance of universities, which has expanded throughout the region. The recent expansion of this well-established university subsector has occurred without any concomitant changes in subsectoral finance and organization, or in institutional management, and without paying attention to the relationship between outputs and the market for university graduates.

2.21 Organization and Finance. Public universities enrollment growth has occurred in an environment completely free of user fees and in which the two explosive periods followed the removal of all entrance requirements. This situation has put universities under particular stress because the proportional increase in enrollment exceeded the proportional increase in financial resources they received. The most dramatic indicator of where Argentina's higher education is standing is the expenditure per student, which is of the same order of magnitude for the three levels (see Table 2.9 below). The questions that are raised by this surprising indicator simply show the existence of deep problems: the lesser ones being the scarcity of adequate information on unit costs and other variables, and the more serious problems being serious inefficiencies, e.g., registered students who are not really students, and supposedly full-time teachers devoting extremely limited hours to their academic duties, apparently in accordance with their salaries. Democratization of higher education in Argentina and in other countries in the region has taken the form of lower academic requirements for admission and sometimes even fully open access for all high school graduates to any institution and program. Because of a decline in the average academic background of entrants, there has been a lowering of quality that eludes measure, but about which there is consensus. The obvious impact upon quality of the leading programs has been aggravated by the reduction in the average (per student) financial resources available. The magnitude of the qualitative and efficiency problems described overshadows the problem of deterioration of the physical environment.

Table 2.6

Higher Education Enrollments

Year	Non-University (000)	University (000)	Total (000)
1961	19	160	179
1966	25	226	251
1970	38	237	275
1975	60	537	597
1980	94	398	492
1985	182	664	846
1986	196	707	903

Source: Education Sector Study.

2.22 Institutional Management. A number of problems of management affect both the higher education sector as a whole and individual institutions. A National Inter-University Council (CIN) composed of the rectors of all public universities meets regularly to discuss issues of common interest. It is not empowered to make decisions that are binding upon its member institutions. MEJ's divisions dealing with higher education are similarly limited in power with respect to universities. Budgetary decisions are negotiated on a one-to-one basis between each university and the budget authorities at the Ministry of Economy (ME). In most of the provinces that have several higher education institutions, there is no provincial coordination and only recently efforts in this direction are being initiated in a few provinces. Although some very general and important elements of higher education policy exist, there is a pervasive feeling that the lack of a consistent, comprehensive policy for the subsector is contributing to its sustained deterioration.

2.23 At the level of individual universities, management problems are numerous and levels of efficiency are low. Academic programs in Argentine institutions still operate following a traditional manner, with rigid study programs for each career, organized around a Faculty associated with the career, instead of colleges or departments organized around fields of knowledge. This mode of organization does not promote efficiency. Faculties operate with a high degree of autonomy. There is little if any management control and the high proportion of the scarce resources available through the budget are devoted to salaries, which leaves no resources for other basic inputs. Even the most basic management information such as the number of students enrolled by faculty is difficult to obtain. One reason efficiency appears to be so low is that there are no limits on the duration of studies to complete a degree program or a "career", as they are called. Occasional studies suggest that, in the last decade, only small proportions of university entrants ever graduate, and that large proportions of enrolled students have a small academic load. There is not, however, sufficient information for analyzing such issues.

2.24 The issues discussed appear magnified in the case of Universidad de Buenos Aires (UBA), the largest university in the country and once one of the highest quality institutions in Latin America. UBA has its different faculties spread throughout the capital city. Most of them operated less than half of the last academic period due to strikes of academic and administrative staff. It is claimed that full-time faculty salaries are less than one-half of the domestic opportunity cost of the professional faculty, and the time they devote to academic duties is adjusted accordingly. Students are allowed to take final examinations without attending classes, a practice that has apparently increased lately. In spite of the importance of adequate statistics for analyzing problems like the ones discussed, almost no aggregate figures are available and access to figures for individual universities is difficult.

2.25 Pressure to increase university enrollments has been partially alleviated by the expansion of non-university post-secondary education. In the case of UBA, one way of alleviating the pressure that excessively high numbers of new students exert over scarce resources has been the requirement that students complete a basic cycle, which consists of general courses similar to regular upper secondary courses, before entering the regular university cycle.

2.26 Economic Impact of Graduates. Several studies have analyzed economic impact aspects of higher education, although the supply of information is still limited. Studies of the rates of return to higher education have found that the social rates of return are moderate; on the order of seven percent (see Table 2.5 and Annex 12). These rates will be subject to additional downward pressure as the number of university graduates increases, especially if quality of the education provided has declined. Indicators of excess supply are already observed in architecture for example, and can be anticipated in other areas such as medicine, where enrollment and future output have already soared beyond what appears to be reasonable demand in the health sector in the near future. Studies analyzing relationships between education and income distribution in Argentina (see Annex 13) show that public expenditure in higher education is regressive in Argentina, though to a lesser degree than in other countries in the region. Public funds in Argentina subsidize direct costs of students enrolled in higher education. Since the higher the education level, the smaller the proportion of low-income students enrolled, it is the children of affluent families who benefit from this subsidy. Unless low- and middle-income families obtain special access to funds to compensate for the direct and indirect costs of higher education, their children will be less likely to attend school. The opportunity costs of children studying become a large part of total costs at the age when children can earn substantial incomes.

D. Education Finance

2.27 The federal government is responsible for a large proportion of finance of secondary and higher education, while provincial governments are responsible for almost all finance of primary education. It should be noted, however, that the general federal government revenue-sharing transfers (as determined by the "Ley de Coparticipación") account for about 60 percent of total provincial resources. The magnitude of these transfers has been historically a major source of political conflict, although Argentina's new revenue-sharing law enacted in January 1988 may resolve some of the conflict. Several efforts have been made in the past to undertake a comprehensive analysis of sectoral public finance including provincial expenditure on education. It is easy to underestimate sectoral public expenditure, however, either when complete provincial information cannot be obtained, as is frequently the case, or when initial budget figures are used instead of actual expenditures (see Annex 14 for the ratio between education expenditure and initial budget).

2.28 The share of education expenditures in public expenditures has hovered around 15 percent over the last 10 years (see Table 2.7), with a steady decline in the period 1979-82; however, the national budget declined from about 15 percent in the seventies to under 10 percent in most of the eighties due mainly to decentralization of primary education. In the provinces, however, the share of public education expenditure in total provincial expenditure increased throughout the same period. As a result, for the public sector as a whole, the education sector has maintained its share in total (federal and provincial) expenditure. As a proportion of GNP, public expenditure on education in Argentina has been around 3 percent increasing in recent years to around

Table 2.7

Total Public Expenditure in Education as a Percentage of Total Public Expenditure: 1970-1986

Year	Percent
1977	12
1978	16
1979	17
1980	16
1981	15
1982	13
1983	14
1984	16
1985	15
1986	14

Source: Education Sector Study.

3.5 percent (see Annex 15), which is a moderate level by international and regional standards, even for countries less developed than Argentina (see Annex 1). Some estimates put private expenditure on education under 2 percent of GNP, which means that total national expenditure on education is relatively low. In spite of this apparent long-term stability, public expenditure in education has experienced wide short-term fluctuations in the last 25 years (see Tables in Annex 19). Fluctuations have been related to the overall financial instability of the public sector exacerbated in the case of the education sector by the effects of hyperinflation over salaries, which accrue for most of the budget. Thus, fluctuations reflect mainly salary adjustments rather than quantitative changes in the services delivered.

2.29 The distribution of expenditure by education level appears in Table 2.8. Although primary education experienced a short-term (five years) loss in its share induced by the 1978 decentralization, the main change has been a shift in the source of finance without any substantive long-term changes in the overall distribution. The general pattern of public expenditure by level of education does not present anomalies, although lack of resources for non-salary expenditures (see Annex 16) and low rates of return for secondary and higher education suggest that, besides possible reallocations between levels, shifts in the internal allocations within education levels might improve quality of education. Table 2.9 presents federal expenditure per student by level. While the unit cost for primary education is especially high by regional standards (see Annex 1), the opposite is true in the case of the figure for higher education.

2.30 Fluctuations in these costs of over 20 percent between consecutive years are a common occurrence, exacerbated in the case of primary education. Provincial expenditures per student (see Annex Tables 18a, b) also oscillate, though less than in the federal case. Long-term damaging effects of cyclical behavior are well known; in the case of Argentina it is making it more and more costly to recover old performance levels. Oscillation in salaries (see Annex Tables 17a, b) make it difficult to assess the adequacy of their levels. If average salaries are low, as frequently claimed, whenever high costs appear they are caused by inefficiencies in the use of resources such as, for example, having too low student/teacher ratios.

2.31 Two additional issues concern private finance of education and are important. One refers to the public subsidy provided to private schools; the other to the private supplemental finance provided to the public schools through parent/teacher cooperatives or "cooperadoras". Private primary and secondary schools are entitled, under some special arrangements, to have their regular teacher payroll reimbursed out of public funds. About 20 percent of the education budget is spent in this way. Although the distributive impact of this expenditure is not as equitable as that of expenditure in public schools, it is probable that transfer to private schools has a positive impact on quality, at a lower total cost than pure public provision.

Table 2.8

Distribution of Total Public Expenditure in Education
by Level of Education, 1970-1986
(Percent)

Year	Primary	Secondary	Higher	Other	Total
1970	46.7	22.9	14.9	15.5	100
1975	53.0	22.4	18.3	6.3	100
1977	45.6	34.6	17.4	2.5	100
1978	47.8	34.8	17.4	3.6	100
1979	42.6	38.5	19.0	3.5	100
1980	42.8	38.1	19.1	4.2	100
1981	40.0	39.7	20.3	4.2	100
1982	40.6	39.4	20.0	4.1	100
1983	41.1	39.1	19.8	5.4	100
1984	44.6	37.6	17.9	3.7	100
1985	46.8	34.9	18.4	4.2	100
1986	50.4	32.4	17.2	3.1	100

Source: Education Sector Study.

Table 2.9

National Government Expenditure per Student Year
by Level of Education a/
(Australes, 1987)

Year	Elementary	Secondary	Higher
1961	427.05	772.30	3,051.75
1965	526.03	694.03	2,489.50
1970	721.19	1,821.13	2,150.74
1975	1,111.83	2,579.62	1,979.23
1976	585.50	1,567.91	1,103.61
1977	582.98	1,690.37	1,131.50
1978	3,823.94	2,222.04	1,440.49
1979	1,030.18	2,428.68	n.a.
1980	1,187.52	2,753.33	2,089.33
1981	883.42	2,416.36	1,824.94
1982	617.73	1,675.26	1,277.43
1983	882.56	2,146.24	1,330.98
1984	1,002.21	2,289.17	1,144.91
1985	708.07	1,722.87	1,012.82
1986	885.72	1,378.70	n.a.

a/ See Annex 18 for selected provincial figures.

Source: Education Sector Study.

2.32 With regard to the "cooperadoras", these private local institutions have a positive impact on the quality of education to the extent they have become an important source for non-salary expenditures in most schools (see Annex 7). However, since schools serving low income families receive lower contributions from parents than schools in affluent areas, the efforts of the "cooperadoras" should be complemented to avoid inequitable effects.

III. POLICY RECOMMENDATIONS

3.1 The issues raised in Chapter II require decisive action from the federal and provincial governments of Argentina in order, first, to arrest the deterioration which has been occurring in the education sector and second, to improve sector performance even during the difficult economic period Argentina is experiencing. For each of the clusters of issues discussed in Chapter II, there need to be clear policies, together with a set of operational strategies. Table 3.1 contains a proposed set of recommendations which includes, besides policies and strategies, the programs which, if carried out, will help in achieving the desired objectives.

A. Equitable Access to Primary Education of Good Quality

3.2 The policy recommended for the primary level is to achieve equitable access for all children to primary education of good quality. This policy incorporates several themes: physical access to school places (which we have seen above is not as serious a problem in Argentina as in other countries), equity, and quality of education. All are intimately inter-related. Providing access to education of good quality is essential for true equity: improving quality in schools in poor or remote rural areas is an equity measure.

3.3 Problems of access for the age group 7-12 refer mainly to children requiring special education, geographically isolated families and, in a few exceptional cases, extremely poor families. Some of these cases require precise actions by the provincial sector authorities and some others contain issues for the social welfare agencies of the Ministry of Health and Social Action rather than for MEJ. The issue of equity should be addressed from the point of view of increasing the number of years even the poorest children spend in the primary education system, and increasing the proportion of those completing the cycle. Children of poor families need incentives to stay in school. Besides incentives such as food programs, better quality by itself will tend to increase retention and improve promotion rates. A commitment to better quality requires an effort to set realistically achievable standards and to identify specific, cost-effective means for achieving them. Once this is done, appropriate ways for channelling the financial resources can be put in place.

3.4 Three main strategies that will contribute to put this policy into effect are discussed: (i) targeting public resources on the poor, (ii) setting standards of quality, and (iii) providing technical assistance to the provinces to enable them to manage more efficiently, implement their programs more effectively and improve the educational process in provincial schools. These are examples of the kind of role that both, the federal level and the provincial education authorities, working together should assume to achieve national objectives and policies with the latter as providers of educational services themselves.

Table 3.1

The Programs' Policy and Strategy Recommendations

Policy	Strategies	The Programs
Equitable access to primary education of good quality.	Target resources on the poor.	-Finance school lunches and education materials to children of low income families. -Establish salary incentives to attract good teachers to poor areas. -Assist Cooperadoras.
	Establish standards of quality and measure achievement.	-Establish the National Assessment Systems of Education in MEJ -Establish the National Technical Assistant Service in MEJ.
	Provide technical assistance and strengthen implementation capacity.	-Establish/Strengthen provincial management/ programming capacity (MIS-inventory of physical facilities).
Decentralization of Secondary Education.	Prepare a program for decentralization.	-Complete inventory of physical facilities and implement investment plan for delivery of an adequate infrastructure to provinces. -Prepare the decentralization plan based on experience.
	Convert MEJ to a federal role.	-Establish federal functions at MEJ (experimental quality improvement program)
	Reassess the technical/vocational education system.	-Modernize and adjust vocational/technical education programs to actual needs, in coordination with users.
Recover relevance of Higher Education.	Reassess the objectives of higher education.	-Strengthen subsector management at the national level. -Establish a national independent assessment agency.
	Modernize the universities.	-Modernize the academic organization of universities.
	Structure the subsector at the national and provincial levels.	-Establish integrated provincial systems of higher education.
Allocate finance in accordance with equity and cost-efficiency criteria	Target federal resources for primary education.	-Create economic analysis capacity.
	Set up financial arrangements for decentralization of secondary education.	-Extend revenue sharing arrangements, in accordance with national objectives. -Establish access of provinces and universities to investment funds.
	Mobilize new resources for higher education	-Provide incentives for higher education institutions to mobilize additional resources from the beneficiaries of higher education (students) and non-federal government resources which may be stimulated by federal contributions given as matching funds.

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3.5 Target Resources on the Poor. Although resources for the education sector have been allocated more equitably in Argentina than in most other Latin American countries, there is still ample room for better targeting. Targeting of national financial resources is discussed in para. 3.21. There are several ways to improve targeting of resources for primary education:

(a) Provide free textbooks to children of poor families, or to all families in poor areas.

(b) Assist the "cooperadoras" that are associated with schools in poor areas, so that they can provide almost as much support to their school as "cooperadoras" of schools in affluent areas. This will require care in designing the system of aiding "cooperadoras" so as not to remove their incentive to provide what they can to improve their schools.

(c) Establish a system of incentives for high-quality teachers to teach in rural schools and schools that serve disadvantaged areas. At present, in the absence of special incentives, the best teachers tend to move to the best schools, which is understandable. Once again, the formula will have to be designed with care in order to accomplish the objective of targeting without too great an increase in recurrent cost.

(d) Redesign the system of nutritional supplements for school children. There are indications that there are inefficiencies under the present system and that a significant portion of food goes to middle class families. It may be possible to accomplish the objective of aiding children of the poorest families through a better design and more sensitive targeting.

3.6 Establish Standards of Quality and Measure Achievement. Progress achieved in some areas of the Argentina primary education system should be spread throughout the country. For this, MEJ should take a leading role for setting the national standards of student achievement. By standards we mean a system of attainable norms indicating what students should and could have learned in major subjects (language, mathematics, etc.) by a certain level. Where schools fell below these norms, this information would lead to actions to overcome the problems and shortcomings. After determining that a school administrator and staff were making acceptable efforts, authorities could intervene (through training, supplemental materials and resources) to help the school achieve the norms. On the one hand, the MEJ would conduct the control and evaluation activities that identify the problems. On the other hand, traditional forms of direct personal supervision cannot be implemented from MEJ, therefore, more modern techniques for assessing student achievement have to be set up at MEJ. Direct supervision programs, dealing with pedagogical techniques and classroom activities, will have to be implemented by the provincial sectoral authorities. Besides setting achievement norms and standards, MEJ should

establish a minimal set of enforceable basic norms in areas such as teacher qualifications, course duration (including time in class per day) and class size. In order to permit the MEJ to monitor these standards, MEJ needs to restore the statistical processing capacity that once existed but has fallen into disuse.

3.7 Provide Technical Assistance and Strengthen Implementation Capacity. Capacity for developing and implementing sectoral programs differs among the provinces. MEJ should identify the levels of capacity and the nature of the needs in the provinces in order to contribute effectively to building the institutional and human resource base needed for sectoral development in each province. There are provinces that have developed relatively sophisticated capacities in fields such as curriculum, psycho-pedagogy, programming and management. MEJ should encourage and facilitate disseminating knowledge and methods developed in some provinces to others that are still in need of improving their performance in these fields.

3.8 Some provinces, which can be readily identified, have strong capacities to prepare and implement subsectoral plans that meet relatively high standards. There are, however, other less-developed provinces where there are urgent management needs that must be satisfied before adequate quality improvement programs can be implemented. The most developed provinces need to have access to investment resources (perhaps through a loan fund), which would enable them to make fuller use of their implementation capacity. More comprehensive programs should be worked out in the less developed provinces in order to strengthen their abilities to seek and utilize resources to upgrade the quality of their primary education sub-system.

B. Decentralization of Secondary Education

3.9 The decentralization of primary education took place by the unilateral action of the central government. Responsibility of primary education was returned to the provinces, as provided in the Constitution, but with no warning or preparation for the provinces to assume administrative control and no transfer of resources. Some provinces were able to respond readily to this challenge; others experienced difficulties and severe economic strains. Still, most observers agree that it is preferable for the provinces to manage their own primary education system, and this is one act of the Military Government that has not been rescinded. As the conflict of April-May 1988 over primary teachers' salaries indicates, there are still problems and shortcomings in the federal/provincial arrangements for managing primary education. It is unfortunate that, even though a decade has passed since the forced decentralization, there has been no evaluation of its impact on either educational quality, financing or management. If secondary education is to be decentralized, all parties agree that it should be done with prior consultation between the parties involved, with plans and preparation for added administrative burden (e.g., technical assistance to the provinces by the central MEJ), and some formula for transfer of some or all of the resources currently spent for secondary education by the MEJ to the provinces. There is far less agreement, however, on how these things should be done, and especially not on the last point regarding transfer of resources.

3.10 In order to achieve continuity between education levels, it is necessary to establish better links between primary and secondary education. Decentralization of secondary education will help this endeavor. The provinces are willing, and even eager, to take over the responsibility for secondary education. In fact the share of secondary education provided by the provinces has been increasing through time and in one province, Rio Negro, enrollment in national schools is almost negligible (see Annex 8). There is a widespread feeling that national schools are, on the average, of better quality than provincial and that some industrial technical schools offer quality education. Figures on expenditure per student tend to provide support to this hypothesis: national expenditure per student is higher on the average than the provincial expenditure, and expenditures per student in industrial technical schools exceed that in non-technical schools. A concern on the part of the provinces is then, that if they take over responsibility for the national secondary schools, they will need additional funds to maintain the quality of the schools transferred. The strategies proposed to progress towards this policy refer to preparing an explicit decentralization program, and reassessing the roles of the MEJ and of the technical/vocational education system.

3.11 A Decentralization Program. Given the existing consensus about the desirability of decentralizing secondary education, it is important to prepare a program with readily identifiable steps leading to a successful transition. Perhaps most importantly, it will be necessary to concretely address the issues of how to distribute financial resources and responsibilities. Financial issues have to be addressed within the framework of the complete national revenue-sharing package, including any adjustments that may have to be made in primary education finance. Economic differences among provinces suggest that a uniform proposal covering simultaneous decentralization to all provinces may be difficult to draft. There are two possible ways of dealing with this issue: either following a phased approach, with provinces assuming responsibilities at different points in time; or developing a mutually agreed-upon program of transition based on the findings of a task force in which relevant sectoral, provincial and economic interests are represented.

3.12 A Federal Role in Secondary Education. One of the areas for immediate actions in relation to decentralization of secondary education is clarifying the role and functions that MEJ should provide under the new arrangements. Its role with regard to secondary education is similar to the points discussed in paras. 3.6-3.8 for primary education. The MEJ is still organized as it was before the decentralization of primary education, an arrangement that is inadequate now and it would be totally inappropriate for a future federal role. It has great difficulties recruiting and retaining adequate staff due to severe limitations on salary levels. There will be a need for substantial adjustments if it is to have an organization and staff suited to a federal role. Appropriate staff and financial resources should be allocated to the tasks of reconceptualizing the Ministry's role and developing its capabilities to fulfill new functions while eliminating its activities as a direct service provider.

3.13 Reassessment of the Technical/Vocational Education System. Technical/Vocational education is a highly important area to be considered in connection with decentralization of secondary education. On one hand it is necessary to understand better the role of technical/vocational education in the context of both the complete education system as well as the overall economic process and to program future investments accordingly. The productive sectors in Argentina should play a priority role in this process. On the other hand, there is an important question whether responsibility for this type of education should be kept at a national level or should rather be transferred to the provinces, as in the case of academic secondary education. Detailed subsector work, already underway at MEJ/CONET as part of Loan 2984-AR will help in identifying areas for strategic decision making, for a workable plan and capacity to implement the plan.

C. Relevance and Efficiency of Higher Education

3.14 The higher education subsector presents many problems, including severe shortage of economic resources, organizational and institutional problems, and great political sensitivity. The continued development of the higher education subsector (with associated research and technology capacities) is, however, of critical importance for the country's economic growth and participation in the modern international economy. Despite the problems, some of which may seem overwhelming in the short run, there do seem to be possible avenues of change and improvement for the subsector. The policy framework, with which all levels of Government as well as higher education institutions should agree, is that Argentina's excellent system of higher education should seek both relevance and efficiency during this period of rapid growth and scarce financial resources.

3.15 In order to explore possible solutions to the problems of higher education, it will be necessary to address them directly and explicitly in national debate; a debate that--largely due to political sensitivity--has been avoided for too long in Argentina. The key participants or "stakeholders" in this debate must include the universities themselves (a large and diverse group), their representative organizations (the Consejo Inter-Universitario Nacional (CIN) and Consejo de Rectores de Universidades Privadas (CRUP), provincial higher education authorities, the federal MEJ and its Directorates concerned with universities and research, representatives of faculty, students, parents and other interests (e.g., churches). The debate should lead to a reassessment of the objectives of higher education (an admittedly difficult theme, subject to endless philosophizing, but essential to discuss in at least its broad outlines), and of the structure and organization of the higher education subsector (including the role of federal and provincial governments and the possibilities of organizing post-secondary education "systems" at the provincial level). Finally, it should lead to a modernization of Argentina's universities, which include ways of increasing efficiency. In the long run this will help to redefine the magnitude of the higher education subsector in Argentina (including issues of cost, quality and equity of access).

3.16 Reassessment of the Objectives of Higher Education. There are basic questions about the role of higher education that must be answered before starting the search for solutions to subsector problems. Does democratization of education imply (real) universalization of access to higher education? If yes, to what kind of higher education do secondary graduates have access? How soon should this objective be achieved? Which institutions in Argentina should assume the scientific research and development role necessary for leading the socio-economic development process? What sharing and allocation of institutional specializations would be appropriate for preparing the human resources that will contribute to Argentina's development?

3.17 Although individual groups or institutions address these questions periodically, there is not any authorized organization that could represent and synthesize subsectoral interests. The MEJ, CIN and CRUP need to fill this gap as a high priority and identify the proper roles for themselves.

3.18 Structure of the Subsector. Although there is a division of tasks between universities and other higher education institutions in some respects, distinctions among different universities and categories of institutions and their responsibilities are not clear at all. Except for their geographical location, almost all universities purport to do the same things. Besides causing unnecessary duplication, this has led to elimination of some desirable and usually sophisticated activities. Lack of flexibility for inter-institutional student transfers is another adverse feature implying wastage of resources. Better definition of subsector objectives would allow better organization and division of responsibilities, including those related with research. In some major provinces with relatively large higher education subsectors, a provincial higher education system should be established with the corresponding institutional division of responsibilities.

3.19 Modernization of Universities. Argentina universities are still organized around Faculties (para. 2.23), which implies unnecessary duplications of courses and programs, and lack of flexibility within each university. Reorganization of universities introducing departmentalization by areas of knowledge will allow a better allocation of the available resources. Administrative improvements such as more flexible curricula and imposition of time limits within which students must meet criteria of progress toward completion can reduce the average time to graduation and increase the proportion of entrants who graduate, without losses in quality below present levels.

D. Use of Education Finance to Achieve Equity and Cost-Efficiency

3.20 There is little doubt that the present allocation of finance in the education sector is the result of a series of emergency measures taken in the past to address ever-mounting, conflicting pressures. The outcome, as analyzed in Chapter II, is a sector in disarray. Some difficult decisions will have to be taken in the immediate future in order to avoid potential further conflicts. Most of the strategies already outlined in this chapter should help to improve the impact of the resources spent in the sector. To complement them, financial

strategies should emphasize targeting federal resources for primary education, agreeing on the financial arrangements for the decentralization of secondary education, and mobilizing new resources for higher education.

3.21 Targeting Federal Resources for Primary Education. There is widespread feeling that the 1978 primary education decentralization process has not been completed. The way in which the latest teacher conflict was settled suggests that there are still important issues to be resolved regarding the federal government's financial responsibility for primary education. Any new arrangements in this field should be undertaken in the context of the revenue-sharing law, either as direct federal contributions or in the form of matching funds. We had identified four areas in which federal resources can reinforce provincial efforts and improve targeting (para. 3.5). Acting in any of them would have strong effects on equity and would also increase effectiveness and improve quality of primary education.

3.22 The Financial Arrangements for Decentralization of Secondary Education. There is consensus in Argentina about the desirability of decentralizing secondary education. There are, however, diverging opinions about specific ways for implementing the decentralization. The most complex issue refers to the amount of federal financial resources that would be transferred to the provinces and to the mechanism for effecting the transfers. Diversity among provinces indicates that it is difficult to draft a uniform set of measures which would turn out acceptable to all parties. This should be overcome following a phased approach, with temporary arrangements operating during a transition period, and then having permanent agreements undertaken by the provinces at different moments in time. All financial agreements for decentralization of secondary education should be considered in the context of the new revenue federal finance of primary education.

3.23 Mobilization of New Resources for Higher Education. Expenditure in higher education is highly inadequate in Argentina, both in global and per student terms. Given the current restrictions on public spending, it is evident that, besides increasing the effectiveness of the resources currently spent, new ways must be found to mobilize new resources. Other sources of financing, such as the direct beneficiaries (students) or voluntary contributions from industry could become important. This would result in a better higher education product delivered by the system. Regressive distributive effects can be avoided by using appropriate loans/scholarships schemes already developed elsewhere.

IV. PROGRAMS FOR THE EDUCATION SECTOR

4.1 This chapter lists action programs to deal with some of the issues and problems identified in this analysis. Following the structure used in earlier chapters, these fall within four program areas: (i) the primary level, (ii) secondary education (including vocational and technical schools), (iii) higher education, and (iv) education finance, which affects the sector as a whole and its management.

4.2 At the outset it is important to distinguish between activities that can be implemented in the relatively short term, and others that will require prior development of a national consensus and/or policy decisions. Foremost among the former group are some of the activities proposed for improving quality of primary education; among the latter group that will require more time are activities that will depend on a clear decision to decentralize the remaining service-delivery activities of the MEJ (and about how this is to be done). The discussion that follows presents program ideas that, on the basis of information presently available, seem feasible and desirable courses of action, even though the level of consensus or "policy readiness" varies considerably.

A. Primary Education

4.3 Under the decentralized arrangements that now govern primary education, direct action to improve primary schools is the responsibility of the provinces. The role of the federal government is constrained. But because the transition took place so precipitously and with so little planning and institutional provision for the change, the present relationship between the MEJ and the provinces is not clearly defined. There has not been adequate arrangement for the Ministry to provide the sorts of services and assistance to the provinces that it can and should provide. Establishment of an appropriate "federal role" should have high priority, including the federal involvement in a decentralized system in promoting equity. Financial intervention to augment the educational spending of provinces should be targeted so as to achieve equity objectives in an efficient way. Aid can take a number of forms, including direct assistance of various types, and incentive programs designed to stimulate complementary funding from non-federal sources. Several activities along these lines are the following:

4.4 Strengthening Provincial Education Management. Strengthening provincial capacities to plan and manage their education systems and provide high quality educational services is essentially a technical assistance activity that provinces can either handle themselves, or which the MEJ can promote and provide. The former alternative in which provinces handle institutional strengthening themselves, should operate in more-developed provinces. Technical assistance from the MEJ should be available to other provinces. There should also be an opportunity for cross-fertilization and exchange of information between provinces on successful programs and institutional strengthening practices. Activities should include establishing programming and program-

implementation functions where these do not exist, upgrading staff, providing seminars and training courses, and establishing or improving management information systems.

4.5 Establishing a National System of Educational Assessment. Creating a national system for assessing educational progress is one of the most important support activities proposed for education. This would include setting standards and establishing norms, establishing an achievement testing system, evaluating how the main forms of education are achieving the norms, and making recommendations on the basis of this information about how to improve educational practices. Such a national system should be managed and implemented by the MEJ. In the case of primary education, however, it would be feasible to start an assessment system in a few provinces, building upon existing experience such as that of the federal capital (see para. 2.5)

4.6 Establishing a Technical Assistance Service at MEJ. A service to aid the provinces in the ways discussed in paras. 3.7-3.8 would provide the means by which the MEJ could carry out many of those activities we have called appropriate federal functions: strengthening management in less-developed provinces and advising on how to improve educational services. It would formalize the federal role of the MEJ as an advisory and assisting agency, with the provinces providing educational services directly.

4.7 Providing Subsidies for Poor Children. Argentina, unlike many countries, relies on parents to purchase most primary school textbooks. This has meant that textbooks have continued to be available in adequate supply even during the financial crisis, but it imposes quite heavy burdens on the lowest income families. Federal funding could pay for textbooks for children of poor families, either outright or through matching programs. Targeting could be either on the basis of means tests or by providing subsidies for schools serving predominantly poor populations.

4.8 Providing School Lunches. Another equity program is school feeding. A recent evaluation of programs in Argentina found serious shortcomings in existing programs, in many cases due to poor targeting and poor management. Targeted school lunch programs should be explored, both at federal and provincial levels, taking advantage of studies and analyses that suggest efficient ways of designing and implementing programs in order to improve nutrition and reduce school dropouts.

4.9 Establishing Incentives for Teacher Mobility. One of the problems identified is a concentration of the most able teachers in urban areas and in school districts with relatively high academic standards. A program to provide incentives to well-trained and well-performing teachers to teach in schools serving poor urban and peri-urban neighborhoods, or to teach in rural areas, would promote equity. The programs should vary between provinces in design and in the level of federal contribution to the incentive program. It would be important to design the program so that pay increments stimulated high-ability teachers to work in areas where professionals of their calibre would not otherwise choose to teach.

4.10 Assisting Cooperadoras. The primary school parent-teacher associations or Cooperadoras play a highly important role in financing non-salary costs of primary education. It is obvious, however, that the Cooperadoras cannot overcome financial inequities because their ability to provide additional support to their school depends on the economic strength of the community. There is a need to develop schemes that will provide aid to cooperadoras of schools serving poor children and utilize their self-help capacity, without reducing the incentives for parents and community institutions to contribute financially within the limits of their means toward better education of their children. Cooperadoras offer an institutional means to carry out the textbook subsidy program proposed in para. 4.8.

B. Secondary Education

4.11 The nature of program proposals for the secondary level depends on how much progress can be expected toward decentralizing the federal secondary schools. This is a major decision which, as discussed above (paras. 3.10 and 4.1), enjoys widespread support in general terms but still requires extensive "marketing" and policy development efforts before the way is clear to undertake concrete actions. Nonetheless, it is possible to program specific activities in anticipation of a decision. Activities initiated under Loan 2984-AR such as a study and an inventory of secondary education physical facilities and studies to reassess the technical and vocational education system now under CONET are examples of such preparatory steps. An issue requiring further analysis by MEJ, for example, is whether the vocational and technical education system now under CONET would be decentralized. Until such issues are settled, any program must necessarily contain many uncertainties. Activities envisaged for secondary education include the following:

4.12 Preparing a Decentralization Plan. Isolated efforts undertaken in the past can now be consolidated into a plan for decentralization that is mutually acceptable to provinces and the federal government. Much of the program for secondary education will depend upon, first, a clear and widely acceptable decision to decentralize, and second, on the nature of the decentralized system that emerges. Such a plan must deal with the short-term financial issues of the transition period and the longer-term financial issues related to national-level revenue-sharing arrangements. It must also deal with issues of subsector management and the division of responsibilities between federal and provincial authorities. Issues such as the future of technical/vocational education--its role, character, organization and management--are highly important areas for strategic choices that can be dealt with either in the context of decentralization or separately.

4.13 Establishing Federal Functions at MEJ. A National System for Educational Assessment and a Technical Assistance Service are two federal services that have been discussed (paras. 4.6 and 4.7) in connection with primary education. These federal functions should be extended to cover secondary education as well. Since a major portion of secondary schools are now under federal control, it may well be that these functions could be implemented

first for the secondary level and then extended to primary education. In such a context, as a very preliminary step toward a National Assessment System, an experimental program of qualitative improvement and evaluation is one component funded under Loan 2984-AR. The experiment involves twenty schools throughout Argentina. If successful, the experiment will be extended to more schools, in all provinces. Extension of an evolved and adapted form of the experiment to national scale would take place in the mid nineties. The same is true of experimental and pilot activities in the areas of in-service teacher training and educational materials development and use: dissemination of findings on a national scale would be an appropriate federal activity.

4.14 Inventory of Educational Facilities. One special preparatory activity has been initiated under Loan 2984-AR and needs to be completed to facilitate further advancement toward decentralization. This is the detailed inventory of secondary education physical facilities that was begun under the PPF for the loan and will be completed during 1988. The inventory has to be extended to include facilities now under provincial jurisdiction. A component under Loan 2984-AR will improve the provinces' capacities to conduct such inventories. The inventory will identify needs for repair and rehabilitation of school buildings and other aspects of the supply of physical space that will provide essential information on which to base plans for infrastructure development. This information will give the federal MEJ the basis for repairing and upgrading the facilities prior to any transfer to the provinces, thus the decentralization would leave provinces with schools in good condition.

4.15 Infrastructure Investment. On the basis of the national and provincial inventory, the MEJ would carry out a repair and upgrading program so that all provinces would receive federally-owned secondary school buildings in an adequate state of repair. In addition to upgrading existing buildings, there may be a need for some investment in infrastructure for the secondary level, even though available data indicate that the incremental demand will be moderate for the next 5-10 years. Such investment in new infrastructure would--under one scenario--be undertaken by the provinces, under various sorts of capital assistance from the federal government. Planning for infrastructure investment will require the provinces to have management capacities developed through technical assistance, as contemplated in para. 4.13.

C. Higher Education

4.16 The uncertainties and contingencies that affect program planning for higher education are at least as great as those discussed in connection with the secondary level. They stem not from uncertainties about decentralization but rather from a lack of consensus regarding the objectives of higher education. Each of the main participants in the subsector has somewhat different perceptions of what university education should provide its students, the role of the universities themselves, who should pay what shares of the cost and other issues. There are questions not only about the role of the federal and provincial governments, but also about the universities' own coordinating entities (CIN and CRUP), the relation between public and private institutions,

critically important financial questions, about the organization of the higher education subsector at the provincial level, and internal organization and management within individual institutions. Developing an investment program in the higher education subsector will mean taking actions and decisions that will tend to build consensus and prepare the way for future improvements.

4.17 Strengthening Management of the Higher Education Subsector. Loan 2984-AR includes a modest component to help the CIN analyze its management role and strengthen its capacity to serve as an effective institution for planning and governance of public higher education. This limited activity is only a starting point. If there is receptivity on the part of the higher education community to the idea of improving subsector management, planning and effectiveness--and there are indications that the universities are receptive--additional technical assistance, policy development and, potentially, capital assistance should follow. The first task, however, depends on the Argentine institutions--the MEJ, CIN, CRUP and their member universities, and some provincial higher education agencies--to examine the objectives of higher education and develop an acceptable mode of working together to achieve the objectives agreed upon.

4.18 Establishing An Independent Assessment Agency. Neither CIN nor CRUP, nor the MEJ, provides any independent qualitative assessment of higher education institutions. In other countries such assessment is provided by autonomous entities established by the universities themselves (i.e., accreditation bodies). It would be logical for the existing coordinating agencies to undertake such a role, or to act in their coordinating capacity to create new institutions that could perform the role.

4.19 Modernizing University Management. Moving from the level of subsector management to the individual institutions, there is a tremendous need--and opportunity--to strengthen management capacity. Individual universities have taken steps toward more efficient internal organization, eliminating duplication of functions and making better use of available resources. Their efforts should be encouraged and, in the case of exemplary management practices, disseminated to other institutions. Similarly at the provincial level, especially in those provinces having large numbers and varieties of post-secondary institutions, there is a need for better coordination to eliminate duplication, respond to educational demand better, make better use of urgently-needed resources. Intra-provincial decentralization might be desirable in some cases. It would be desirable to support and encourage provinces that decide to create coordinating institutions to accomplish these ends.

D. Education Finance

4.20 This sector study has revealed a number of significant points about financing of education in Argentina that influence the issues any future program needs to address. While policies regarding quality and equity are obviously of utmost importance, establishment of sound policies of educational finance are necessary conditions for sectoral development.

4.21 Creating Economic Analysis Capacity. Perhaps the most important step toward improving educational finance is simply institutionalizing the use of economic analysis to guide education sector policies and spending decisions. Activities funded under loan 2984-AR will contribute to better knowledge of financial implications of policies, and to formulation of policies that promote efficiency, effectiveness and equity. An important example is the creation of a Policy and Coordination Unit in the Office of the Minister of MEJ, which will provide needed capacity to perform economic and policy analyses. Other examples include strengthening MEJ's budgeting capacities and improving budget practices, studies of university governance, and provision of information processing capacities. Stronger management and analytical capabilities are also needed at the level of higher education and provincial institutions, recognizing that there are differences in their needs and capacities. In the longer run, efforts to improve management and policy making capacities and to base MEJ decisions and programs on economic analyses will develop MEJ's capacity for preparing policy-based lending activities.

4.22 Extend Revenue-Sharing Arrangements. Intergovernmental financial relations are critically important, and will become more so in the context of further decentralization and development of new approaches to higher education finance. The new revenue-sharing law (Ley de Coparticipacion) enacted in January, 1988, overcame long-standing difficulties in federal/provincial financial relations. The law is simple, equitable and reasonably transparent. While it tended to redress the problems caused by the 1978 decentralization of primary education, it may have fallen short of that objective. Further decentralization (whether of academic secondary schools alone or vocational and technical schools as well) will require some kind of additional adjustments or changes in the present law. Achieving an agreeable design for such financial arrangements is one of the most important challenges of decentralization. Federal funds can be especially important incentives and catalysts to encourage targeting of scarce public resources, as discussed in connection with primary education, and this possibility should be given careful consideration in designing revenue-sharing measures.

4.23 Develop Capacities for Lending to New Institutions. Argentina's federal structure and the movement toward decentralization mean that Bank lending could perhaps be most effective if new approaches to lending were developed, so that implementing agents are reached directly. These new approaches might include the formation of capital funds for lending to provinces and (public and private) universities, or establishment of other on-lending arrangements that would give them access to capital on reasonable terms.

4.24 Incentives to Mobilize Additional Resources for Higher Education. There is at present a growing understanding of the need for additional resources for the universities. As experience has shown elsewhere, the one way for generating stable sources of income for universities is through, at least partial, cost recovery with student fees. As a first step, all parties to higher education policy decisions will need to acknowledge the need for additional resources, which may be more easily achieved than many have feared.

Incentive programs would then need to be developed that would bring forth contributions from the beneficiaries of higher education (students), their families, or from institutions in the society that are indirect beneficiaries such as voluntary contributions from the industrial sector. For example, federal funds could be made available on a matching or counterpart basis to stimulate the search for new sources of contribution for the revenue. There should be a study of the feasibility of educational credit arrangements that would increase the ability of students to invest in their own education.

V. AN INVESTMENT PLAN

5.1 The principal elements in an appropriate strategy for Argentina include (i) decentralization of the remaining service-delivery activities of the MEJ (mainly the federal secondary schools); (ii) improvements in management and institutional capacities at all levels of a new federal education structure; (iii) qualitative strengthening of elementary and secondary education so that all children have equitable access to education of good quality; (iv) improvements (within the context of institutional autonomy) of the efficiency, quality and relevance of higher education; and (v) generation of additional resources for the sector. In some instances these areas for action involve infrastructure investments but, because access levels are generally high and incremental demand for places will mainly serve the moderately-growing population, the share of infrastructure in the total investment program will be smaller than in other countries. To reap adequate benefits from an investment program for education, Argentina must change and strengthen sector policies.

5.2 Education finance should receive high priority in order to increase sector efficiency and promote equity and growth; and to reverse the trend of recent years which threatens a permanent reduction in admirable levels of human capital stock. We recommend that the decline of public spending on education should be arrested at about 3.5 percent of GNP, the level of recent years. Since total public spending is projected to decline in relation to GNP, this implies that education's share of the public budget should rise. The annual education budget would need to grow by about $130 million per annum during the period 1990-94 in order to maintain this percentage. If education's percentage share of public expenditures were to remain constant, however, its annual budget would only increase by $86 million per annum. Argentina will find it difficult to fill the $40-45 million-per-year financing gap under the present circumstances of fiscal stringency.

5.3 The Bank has undertaken to lend in the social sectors fairly recently in Argentina. The Social Sector Technical Assistance Loan (Loan 2984-AR) has initiated activities to strengthen management and institutional capacities at the MEJ and to improve educational quality. The forthcoming Social Sector Investment Loan is expected to continue the need support of these activities, and also to finance some infrastructure investment. Nevertheless, the MEJ and the Ministry of Economy are concerned about the costs of federal involvement in education and the adequacy of the resources that will be available. In this time of economic crisis, the availability of counterpart funding for future investment by the Bank and other donors is a critical issue. The provinces on their part are deeply concerned about the structure of future federal financing in education.

Outline of an Investment Program in Education

5.4 An investment program, besides continuing to completion the activities initiated under Loan 2984-AR should facilitate and provide strong incentives for decentralization--with equity--of education, and encourage Argentina to adopt and maintain desirable educational policies in the areas of qualitative strengthening, targeting resources on the poor, and improving the efficiency and relevance of both vocational/technical education and the universities. We now discuss five components of a possible investment plan: institutional strengthening, qualitative improvements, infrastructure, capital funds for on-lending and policy loans.

5.5 Institutional Strengthening. Continued funding will be required in order to bring to fruition the institutional strengthening activities initiated under Loan 2984-AR and expected to be continued under the Social Sector Investment Loan. Substantial amounts of continuing technical assistance would still be needed to institutionalize these programs and activities, and to initiate provincial educational planning and management. It would be desirable for donors and lenders to fund 100 percent of the costs of international technical assistance in order to bring the needed international expertise to bear. It is assumed they would also fund approximately 50 percent of local technical assistance and 50 percent of the cost of information technology for provincial education management and planning.

5.6 Qualitative Improvements. The cornerstone of quality improvement is a national educational assessment program. Based on the abundant knowledge already existing in the country, an assessment capacity should be created. The estimate of $10 million for this purpose is based on the costs of comparable activities in other countries, taking into account the passage of time and differences between specific circumstances. It is assumed that donors/lenders would finance 80 percent of the start up costs of this essential activity, in which the role of international technical assistance would again be critically important in bringing the best available practices to bear in designing the system and its operational structure.

5.7 Other activities already initiated under Loan 2984-AR include in-service programs to upgrade teacher skills and educational materials development for samples of federal secondary schools. These programs or modifications thereof will need to be continued, offered to all teachers including provincial personnel, and extended to the primary level. The costs of these continuing activities are estimated at US$25.00 per primary teacher per year and US$40.00 per year for secondary teachers. As improvements in the quality and efficiency of education will require time and patience, knowledge of how to intervene to enhance educational quality, and the commitment of adequate financial resources to this end. It would be desirable for donors and lenders to finance up to $20 million of the combined costs of these activities. The Bank can play a pivotal role in encouraging such a commitment of resources, in part by drawing attention to the potential cost-effectiveness such expenditures.

5.8 Infrastructure Investments. Although the need for additional educational infrastructure in Argentina is less than in most other Latin American countries, there is a need to bring federal facilities that are to be transferred to the provinces up to an adequate level of quality. Once this is achieved, provinces must be required to continue a program of maintenance and this will require assistance. The provinces should also be stimulated to maintain a continuing inventory of the status of their educational infrastructure. Donor/lender financing should fill this role by covering a portion of the costs of maintenance and upgrading of facilities and enhancing local efforts. Through appropriate technical assistance the need for new construction has been estimated at 100,000 m^2 on the basis of projected moderate rates of increase in enrollment, and its finance on unit costs of US$200.00 per square meter. This later figure is somewhat below the prevailing unit costs of construction in the federal capital and larger cities, on the assumption that incremental needs will be greatest in smaller communities and that the prevailing costs can be reduced somewhat without sacrificing true quality of teaching spaces. Repair and rehabilitation of at least one million square meters of existing facilities (at $20.00 per square meter) is based on preliminary results of the inventory study. The total infrastructure investment would be of the order of US$40 million.

5.9 Capital Funds for On-Lending. Once decentralization has taken place, the provinces will be the principal entities making educational plans, estimating costs and preparing investment programs. It will be desirable for lenders to adapt their modes of lending to work within this context in Argentina's education sector. This implies creating institutions and procedures whereby lenders can provide initial funding for revolving funds or other pools of resources to which the provinces can have recourse. These kinds of arrangements are being implemented in the Bank's operations with increasing frequency. The institutional strengthening, managerial and planning development activities already described are intended to produce capacities that will enable educational authorities to survive borrowing from an education investment fund or funds established for prescribed purposes.

5.10 Not only the provinces but also the universities will be in a position to prepare development projects and undertake major investment programs. The universities' autonomous status can be viewed as an advantage in terms of their ability to move in this direction. The study team has examined examples of project proposals prepared by a province and a university, even though no program to stimulate such proposals has begun and there are no institutional avenues for receiving, reviewing and funding them. The estimates for capital funds for provincial and institutional borrowing are conservative, especially when one considers that sound projects from the more sophisticated provinces and larger universities could readily amount to $5.0 million in each category over five years. Donors/lenders could fund a significant percentage of a new program to permit on-lending to sub-national borrowers--always with a central government guarantee of repayment--in the context of decentralization and implementation of new institutional arrangements.

5.11 Policy-Based Lending. As noted in para. 5.2, there will be a gap of some $41 million per year between the profile of spending foreseen without policy changes or implementation of actions recommended here. In order to provide an incentive to the government to adopt and implement feasible, equitable and economically sound policies and practices, the Bank could finance 50 percent of this gap. This would be less than 20 percent of the incremental expenditures required to maintain current levels of service provision and quality, and less than two percent of the total of over $2.0 billion per annum, which represents the annual investment in human capital education in Argentina.

List of Reports Completed by the Argentina Sector Work Team
(Restricted to Internal Use Only)

Alvarado, Ricardo, Proyección de la Matrícula Escolar de la Enseñanza Primaria, Media y Universitaria de la Argentina, por Provincias. 1980-2010. Proyecto MEJ/ME/Banco Mundial/PNUD 87/009; agosto de 1988.

Delfino, José A., Los Determinantes del Aprendizaje. Proyecto MEJ/PNUD 87/012. Proyecto MEJ/ME/Banco Mundial/PNUD 87/009; agosto de 1988.

Delfino, José A., La Tecnología Educativa. Proyecto MEJ/PNUD 87/012. Proyecto MEJ/ME/Banco Mundial/PNUD 87/009; agosto de 1988.

Gertel, Héctor R., Sistemas de Evaluación y Mejoramiento de la Enseñanza en la Argentina, Proyecto MEJ/PNUD 87/012. Proyecto MEJ/ME/Banco Mundial/PNUD 87/009; agosto de 1988.

Petrei, A. Humberto y Cartas, José M., Costos de la Educación Universitaria en Argentina. Buenos Aires, agosto de 1988.

Petrei, A. Humberto; Cartas, José M.; y Maraviglia, Adriana R., Costos Educativos para los Niveles Elemental y Medio. Proyecto MEJ/PNUD 87/009. Proyecto MEJ/ME/Banco Mundial/PNUD 87/009; agosto de 1988.

Petrei, A. Humberto y Delfino, José A., La Educación y la Estructura de Ingresos en el Mercado Laboral. Proyecto MEJ/PNUD 87/012. Proyecto MEJ/ME/Banco Mundial/PNUD 87/009; agosto de 1988.

Petrei, A. Humberto y Massano, Charles J., El Gasto Público en Educación: Comparaciones Internacionales. Proyecto MEJ/PNUD 87/012. Proyecto MEJ/ME/Banco Mundial/PNUD 87/009; agosto de 1988.

Petrei, A. Humberto y Montero, Marcelo E., El Gasto Público en Educación en Argentina. Proyecto MEJ/PNUD 87/012. Proyecto MEJ/ME/Banco Mundial/PNUD 87/009; agosto de 1988.

Petrei, A. Humberto; Montero, Marcelo E; y Maraviglia, Adriana R., Estudio Comparativo de las Remuneraciones en el Sector Educación. Proyecto MEJ/PNUD 87/009; agosto de 1988.

Sanchez, Carlos E., Federalización, Descentralización y Financiamiento del Sistema Educativo; julio de 1987.

Bibliography

Beccaria, Luis A. and Graciela C. Riquelme, El Gasto Social en Educación y la Distribución del Ingreso. Colección FLACSO, Serie Documentos e Informes de Investigación No. 41. Buenos Aires, 1985.

Beccaria, Luis A. and Graciela C. Riquelme, Efectos Distributivos del Gasto Público en la Educación Pública y Privada. Colección FLACSO. Buenos Aires, 1985.

Beccaria, L. y E. Martínez, La Influencia de la Educación en la Distribución del Ingreso. Un Análisis Exploratorio. Buenos Aires, Instituto Nacional de Estadística y Censos, 1985.

Bertoni, Alicia N. L. de. Prediagnostico del Sistema de Información Educativa (vols. I. II. Anexos). Ministerio de Educación y Justicia (PNUD Proyecto ARG/87/011) Buenos Aires. 1987. (mimeographed reports).

Braslavsky, Cecilia, La Discriminación Educativa en Argentina. Colección FLACSO. Buenos Aires, Grupo Editor Latinoamericano, 1985.

Bravo, Héctor Félix, El Estado y la Enseñaza Privada. Buenos Aires, Editorial de Belgrano, 1984.

Cano, Daniel, La Educación Superior en la Argentina. Colección FLACSO. Buenos Aires, Grupo Editor Latinoamericano, 1985.

Consejo Federal de Inversiones, Regionalización Curricular en el Marco del Planeamiento de la Educación. Buenos Aires, 1987.

Consejo Federal de Inversiones, Producto Bruto Geográfico 1970-1980. Buenos Aires, 1985.

Cowen, R. and McLean M., International Handbook of Education Systems, Volume III. John Wiley & Son, 1984.

Dieguez, H. and Petrecolla, A., "Distribución de Ingresos en el Gran Buenos Aires", in P. Musgrove (ed.), Ingreso Desigualdad y Pobreza en America Latina. Rio de Janeiro, ECIEL, 1982.

Ferra, C., and Claramunt, A.M., Rentabilidad de la Educación Primaria y Secundaria en Mendoza. Mendoza, Universidad Nacional de Cuyo, Facultad de Ciencias Económicas, 1985.

Fundación de Investigaciones Económicas Latinoamericanas (FIEL). Gasto Público. Propuestas de Reforma del Sector Público Argentino. Tomo III: Educación, Salud y Seguridad Social, Buenos Aires, 1986.

Gallart, María Antonia. La Racionalidad Educativa y la Racionalidad Productiva: las Escuelas Técnicas y el Mundo del Trabajo. Encuentro Pedagógico sobre la Educación Técnica. Buenos Aires, 1986

Bibliography (Continued)

Gertel, Hector R., Desarrollo, Educación Superior y su Financiamiento en el Decenio de 1980. Universidad Nacional de Córdoba, 1986.

Gertel, H., De Sanctis M. and Pereyra, L., Educación y Distribución de Ingresos en la Ciudad de Córdoba, en Anales de la XXI Reunion de la Asociación Argentina de Economia Politica. Córdoba, 1987.

Instituto Nacional de Estadística y Censos, Censos Nacionales de Población y Vivienda, Secretaría de Planificación, 1960-1979-1980. Presidencia de la Nación, República Argentina. Buenos Aires.

Inter-American Development Bank (IDB), Economic and Social Progress in Latin America. Washington, 1987.

Kugler Bernardo and George Psacharopoulos, Earnings and Education in Argentina: An Analysis of the 1985 Buenos Aires Household Survey. LATHR Paper. World Bank, Washington, 1988.

Ministerio de Educación y Justicia. Analisis del Financiamiento y Administración de la Educación en un Contexto de Austeridad. Buenos Aires. Noviembre, 1988.

Ministerio de Educación y Justicia. Secretaria de Educación. Dirección General de Planificación Educativa. Consejo Nacional de Educación Técnica: Principales Realizaciones en el Ambito del CONET. Buenos Aires, 1988.

Ministerio de Educación y Justicia, Estadísticas de la Educación (varias) 1972-1985. Departamento de Estadística. Buenos Aires.

Ministerio de Educación y Justicia, Presupuesto por Programas (Ejercicios varios). Dirección General de Presupuesto. Buenos Aires, 1975-1985.

Ministerio de Educación y Justicia, Política de Transformación Educativa. Secretaría de Educación. Buenos Aires, 1987.

Ministerio de Educación y Justicia, De la Universidad de la Transición a la Universidad Democrática. Buenos Aires, 1987.

Ministerio de Educación y Justicia/OEA, Proyecto Especial Multinacional de Regionalización Educativa, Calidad de La Educación - Aportes para su Análisis. Dirección General de Programación Educativa. Buenos Aires, República Argentina, 1988.

Ministerio de Educación y Justicia/OEA, Proyecto Especial Multinacional de Regionalización Educativa, Los Planes de Estudio Vigentes en el Nivel Medio en el Orden Nacional. Dirección General de Programación Educativa. Buenos Aires, República Argentina, 1988.

Municipalidad de la Ciudad de Buenos Aires, Secretaria de Educación, Evaluación del Diseño Curricular de 1981. Buenos Aires, 1987.

Bibliography (Continued)

Organización de Estados Americanos (OEA), Organización Panamericana de la Salud (OPS), Evaluación de los Impactos Nutricionales y Educacionales y Análisis Costo-Efectividad del Programa de Promoción Social Nutricional, República Argentina 1986-1987. Buenos Aires, 1987.

Organization for Economic Cooperation and Development, Education, Human Resources and Development in Argentina. Paris, 1967.

Petrei, A. Humberto, El Gasto Público Social y sus Efectos Distributivos: Un Examen Comparativo de Cinco Países de América Latina. ECIEL, Rio de Janeiro, 1987.

Petrei, A. Humberto, Fiscal Relations Between the Central and Provincial Governments of Argentina. Buenos Aires, October 1987 (mimeo).

Petty, Michael, The Argentine Educational System and its Impact on Peripheral Regions in Argentina, in Education and the Diversity of Cultures. Wien, Böhlan Verlag Köln, 1985.

Provincia de Buenos Aires, Dirección General de Escuelas y Cultura, Informe sobre Funcionamiento del Servicio Educativo en la Provincia de Buenos Aires. La Plata, September 1987.

Provincia de Santa Fe, Ministerio de Educación y Cultura, Aspectos Fundamentales de la Realidad Educativa: Concreciones y Proyectos. Santa Fe, 1987.

Psacharopoulos, George, Returns to Education: A Further International Update and Implications. The Journal of Human Resources Vol. XX, No. 4 Fall 1985, pp. 584-604. University of Wisconsin Press, Madison.

Schulthess, Walter E., El Gasto Público en Educación y sus Efectos Sobre la Distribución del Ingreso de las Personas. Universidad Nacional de Córdoba and Fundación Mediterránea. Córdoba, 1985.

Tedesco, J.C., Braslavsky, C. y Carciofi, R., El Proyecto Educativo Autoritario, Argentina 1976-1982. FLACSO, Grupo Editor Latinamericano. Buenos Aires, 1984.

Universidad Nacional de la Plata, Avance Tecnologico, Modernización y Universidad. La Plata, 1987.

The World Bank, Argentina: Economic Recovery and Growth. Country Study. Washington, 1987.

The World Bank, Argentina: Social Sectors in Crisis. Country Study. Washington, 1988

Annex 1

Comparative Education Indicators
August 2, 1988

	Base Year	Pop. Mills. (1979) (1)	GNP per Capita (US$) (1979) (2)	Percent GNP Devoted to Education (3)	Central Government Expenditure on Education as Percent Total Central Government (4)	Education Recurrent Expenditures Allocated to: Pri. (5)	Sec. (5)	Hi. (5)	Adult Literacy Rate (%) (1976) (6)	Primary Enroll. Ratio (%) (7)	Completion Rate for Primary School Cycle (%) (8)	Primary Students /Teacher (9)	Recurrent Unit Cost Primary Education as Percent GNP/Capita (10)	Progression Rate from Primary to Secondary (%) (11)	Secondary Enroll. Ratio (%) (12)	Secondary Students /Teacher (13)	Higher Enroll. Ratio (%) (14)
Developed Countries																	
Australia	1980	14.6 b	8,870	6.3 a	14.6	---	---	---	---	103 x	100	21	---	99	73	13	20.90
Canada	81	23.7 b	9,650 b	7.7 a	18.5 ay	30 a?	34 a?	23 a?	99 b	106 x	100	21	19.9 a?	100	92 x	18	22.60 x
Germany F. R.	79	61.2	12,200	4.6	9.9 a	---	---	---	99 b	89a	100 a	---	---	100 a	94 a	---	12.10 a
Netherlands	79	14.0 b	10,490	7.9	5.1	20	35	25	99 b?	96	95	18	15.3	99	82	13	12.40
New Zealand	80	3.2 b	6,081 b	5.5 w	13.4	37	31	28	99 b	100	100	24	11.6	100	82	15	25.80 xo
Sweden	79	8.3	12,250	9.0	18.2	31	10	10	99 b	99 x	100	18 a	19.9	100	79 x	10 ay	36.50 ay
Eastern Africa																	
Botswana	1983	1.0 b	920 b	6.0	22.0	41	34	22	40	100	77	32	10.0	40	20	21	1.80
Burundi	81	4.2 b	235	2.8 bw	19.0	43	28	27	25	29 x	35	37	20.2	12	3 x	17	1.00
Comoros	84	0.4	345	3.8 w	28.0	49	29	22	49	76	40	39	---	45	36	28	0.60
Djibouti	84	0.4	480	3.0	11.9	73	26	.	10	42	68	40	67.0	40	10	19	0.60
Ethiopia	85	43.0	110	3.6 p	.5 o	55	28	17	39	37	30 a	63	19.3	93 a	14	44	0.80
Kenya	82	17.4 b	420 b	5.8 wb	20.1 b	65	16	11	48 b	113	58	38	14.4	35	18	26	---
Lesotho	82	1.4 b	435 b	5.5	16.9	38	32	26	53 b	116 x	41	48	9.6	46	21	21	1.80
Madagascar	77	8.5	330	4.0 w	24.0	53	28	19	50	94 bx	33	55 b	8.0	38	14	23	3.10 by
Malawi	81	6.1 b	230 b	3.5	11.4	38	14	25	25 b	62	23	65	5.8	12	4	21	0.40
Mauritius	83	1.0 b	1,170 b	4.3	14.0	46	36	7	80 b	93	72	23	13.0	100	50	22	1.00
Rwanda	83	5.9	270 b	3.6	27.4	71	16	13	37 b	65	30	40	16.0	9	5	16	0.40
Seychelles	79	0.6	1,770	5.9	22.4 a	34 a	33 a	10 a	---	---	---	25	---	---	---	---	---
Somalia	81	4.5	280	1.5	10.8	50 b	44 b	6 b	50 b	22 b	80 b	29 b	9.0 b	80 b	12 b	22	1.00
Sudan	80	19.2 b	380 b	3.0	---	66	30	.	32	51 ax	58	34	1.4	44	16	16	.
Swaziland	83	0.7 b	940 b	3.8 pb	20.4	51	34	15	65 b	93	50	33	11.0	98	29	18	3.00
Tanzania	80	18.5 b	260	5.9	17.7	47	10	16	79 b	98 b	87	43	11.0	19 b	3	20 a	0.30
Uganda	84	15.2 b	220 b	1.6	12.0	18	11	28	52	56 b	42	34	1.5 b	31	19 b	22	0.60 by
Zaire	81	29.8 b	210 b	7.7	26.4	---	---	10	54 b	76	25	30	21.0	40	18	28	2.00
Zambia	80	5.7 b	566 b	4.5 p	11.1	48	23	22	44 b	95	80	48	12.9	19	16	22	1.50
Zimbabwe	81	7.7 b	700 b	5.1	19.5	62	32	6	44 b	90	55	39	20.0	85	15	23	0.50
Western Africa																	
Benin	1979	3.4 b	320 b	6.5 w	35.0	43	21	5	11 b	42	30	46	14.0	30	11	43	1.007
Burkina	83	6.5	210 b	2.1 w	21.7	43	29	28	9	16	25	57	24.3	16	3	24	0.03
Cameroon	84	10.0	810 b	3.1 p	---	33	38	28	20	89	45 b	50	---	---	23	28	2.70
C.A.R.	86	2.6 b	260 b	3.8 ay	24.7 ay	49	16	24	---	79	45	65 ay	18	---	18	67	1.40 ay
Chad	87	5.2	179	2.6	6.9	58 ?	14 ?	3 ?	---	44	39	60	5.8	35	7 a	37	0.80
Congo	78	1.5	670	9.0 awy	27.7 ay	---	---	---	---	---	---	56 by	---	30	---	43 by	4.00 ay
Equat. Guinea	85	0.3 b	270 b	2.8	3.8	47	24	...	20 b	13	10	80	5.2	40	25	17 ay	----
Gabon	77	0.6	3,420	3.7 by	8.4 y	---	---	---	---	---	---	44 by	---	---	---	19 by	2.80 ay
Gambia	77	0.6	220	3.3 aw	6.5 b	46	25 a	6 a	10 b	40 by	90 a	27 by	44.7 a	40	12 bxy	17	---
Ghana	76	11.3	400	4.0 y	15.5 b	---	---	---	---	71 bxy	---	27 by	---	---	36 bxy	21	---
Guinea	79	5.3	290 p	4.6 ap	---	25 a	28 a	28 a	20	34	36	38	20.0 ap	85	16	29	7.30 a
Guinea Bissau	86	0.9 b	170	---	9.5	46	12	---	15(?)	58	10	26	2.0	---	---	16	---
Ivory Coast	83	9.3 b	720	7.3	42.8	51	40	9	35 ay	72	79	37	29.0	49	22 xz	30	1.88
Liberia	80	1.9	520	4.6	19.6	43	23	24	30	52	32	35	20.0	78	22	20	2.80
Mali	81	7.0 b	190	4.2 a	21.7 a	38	21	11	10	20	60	44	15.7	66	1	11	0.90 ay
Mauritania	86	1.7 b	410 b	5.0	22.4	32	40	28	17	55	35	50	30.0	84	16	23	4.30
Niger	84	5.2	300	2.8	21.0	40	25	20	14	25	20	36	41.0	37	6	28	0.50
Nigeria	83	93.6 b	760 b	7.4 y	16.0	---	---	13	36	93	70	36	19.8	47	23	30	2.00
Senegal	84	6.4	380	5.0 b	24.0	46 b	35 b	19 b	28	52	59	46	26.0	19 b	16 a	24	2.20 a
Sierra Leone	77	3.4	250	4.0 b	16.0 b	---	---	---	15 b	37 x	---	35	25.0 b	84	15 x	22	0.60 by
Togo	78	2.4	400	6.5 qw	26.5 q	30 a	28 a	21 a	18	74	40	54 by	38.0	52	32 bxy	48 b	1.80 by
Latin America and the Caribbean																	
Argentina	1978	27.32	2,210	2.7	10.9	43 a	31 a	18 a	93 b	89	52	17	23.8a	87	31	8	23.00
Bahamas	79	0.2	2,770	5.7	19.1	36	36	11	93 b	99	97	24	---	97	75	19	----
Barbados	78	0.2	2,680	8.5 awy	22.1 a	43 a	31 a	16 a	99 b	100 y	99 a	27 y	19.9 a	99 a	78 y	20 y	----
Bolivia	80	5.4	550	4.1 ay	30.5 a	---	---	---	63	74 y	---	20 y	---	---	15 y	---	12.60 y
Brazil	79	116.5	1,770	3.8	6.2	51	---	14	76	73 ay	---	23 ay	4.5 b	61 a	15 ay	14 ay	12.62 b
Chile	76	10.9	1,890	3.2 by	13.0 b	---	---	---	---	119 bxy	---	34 by	---	---	55 bxy	20 by	11.90 by
Colombia	80	26.7 b	1,180 b	3.3	25.0	35	20	20	81 b	78	36	32	6.6	---	47	20	10.02 ay
Costa Rica	80	2.2 b	1,810 b	8.4	31.1	40	27	33	90	93	77	33	5.5	77	40	27	14.00
Cuba	78	9.8	----	8.0	11.0	---	---	---	96	112 bxy	98	18 by	---	98	71 bxy	15	19.02 by
Dominican Rep.	80	5.3	1,030	2.9	13.0	39	21	22	68 b	80	31	59	3.2	94	30	35	16.00
Ecuador	80	8.4 b	1,110	6.0 p	36.7	45	31	16	81	105	---	36	12.6	86	47	16	29.00
El Salvador	77	4.4	640	3.4 by	23.1 by	64	8	27	62	82 bxy	32	30	---	41	26 bxy	27 by	7.90 by
Guatemala	78	6.8	1,010	1.7 by	12.6 b	---	---	---	---	69 bxy	---	35 by	---	69	15 bxy	19	5.50 y
Guyana	76	0.8	630	8.1 by	13.6 by	---	---	---	---	99 bxy	---	32 by	---	---	59 bxy	---	3.00 by
Haiti	80	5.0 b	230	3.4 w	7.9 ay	65	9	6	23 b	50	20	41	19.0	62 a	4 a	27	0.80
Honduras	78	3.8	520	3.5 by	14.3 by	62 a	15 a	19 a	60	89 bxy	30 a	41 by	12.8 a	68 a	21 xy	19 by	8.00 y
Jamaica	80	2.1	1,110	6.5	13.7	37	43	20	90	98	95	40	2.3	95	81	22	10.30
Mexico	80	65.5	1,880	4.7	17.0 a	46	39	15	92	98	53	44	9.5	86	56	17	----
Nicaragua	78	2.6 b	610 b	3.0 bz	14.0 b	---	---	---	90 b	85 bz	24	37 b	---	---	26 bz	32 b	20.40 by
Panama	78	1.8 b	1,550 b	5.5 bxy	21.8 by	42 a	13 a	13	82 b	95 by	---	25 by	11.6	85 a	50 by	27 by	0.70
Paraguay	79	3.0	1,140	1.4 w	14.2	42	17	20	84	83	32	28	3.1 r	76	22	12	14.40 y
Peru	80	16.6	1,000	3.6	14.3	53	15	19	80	83	56	39	9.8	89	39	22	----
Trinidad & Tob.	77	1.1	3,910	4.8 by	8.8 by	48	32	20	95	98	91	30	10.5	49	62	24	17.80 ay
Uruguay	78	2.9	2,500	2.5	9.4 b	---	---	---	94	105 bz	---	24 b	---	---	64 bz	---	21.10 y
Venezuela	78	14.4	3,440	5.17	18.9 b	---	---	---	82	106 bz	---	28	---	---	38 bz	17	

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Annex 1 (Continued)

Comparative Education Indicators
August 2, 1988

	Base Year	Pop Mills. (1979) (1)	GNP per Capita (US$) (1979) (2)	Percent GNP Devoted to Education (3)	Central Government Expenditure on Education as Percent Total Central Government (4)	Education Recurrent Expenditures Allocated to: Pri. (%) (5)	Sec. (%) (5)	Hi. (%) (5)	Adult Literacy Rate (%) (1976) (6)	Primary Enroll. Ratio (%) (7)	Completion Rate for Primary School Cycle (%) (8)	Primary Students /Teacher (9)	Recurrent Unit Cost Primary Education as Percent GNP/Capita (10)	Progression Rate from Primary to Secondary (%) (11)	Secondary Enroll. Ratio (%) (12)	Secondary Students /Teacher (13)	Higher Enroll. Ratio (%) (14)
East Asia and the Pacific																	
China	1986	1,060.0 b	200 b	3.1	7.1	33	46	21	76 b	96	68	25	5.0	67	34	18	4.80
Indonesia	81	150.5 b	520	2.1	9.3	70	24	6	32 b	98	61	37	11.0	74	27	26	3.70
Korea	82	39.3 b	1,636 b	7.7 w	20.8	34	34	31	96	99	98	43	16.0	87	72	22	4.00
Malaysia	86	16.1 b	1,860 b	6.7	16.3	38	40	22	73 b	98	98	22	16.0	87	72	22	4.00
Papua N.G.	83	3.0 a	820	5.4	19.0	40	17	22	---	60	73 a	31 a	15.0	35	13 xz	27 z	1.00
Philippines	79	48.3 b	690 b	2.8 w	14.0	64	36	---	75 b	84	65	31	7.1	89	55	36	21.00
Singapore	80	2.4	4,420	2.7	6.7	39	40	16	83	92	82	31	8.8	96	55	22	6.00
Solomon Isl	82	0.2 b	640	6.6 pw	19.0 b	41	34	20	15	78	80	27	10.5	40	20	18	2.50
Thailand	82	49.0 b	800	3.4	20.3	59	14	10	86 b	101	68	21	9.3 p	44	46	18	4.00
Vanuatu	86	0.1 b	---	8.3	23.5	61	27	4	13	115	60	24	31.0	25	20	16	2.00
South Asia																	
Bangladesh	1979	92.3 b	90	1.1 p	10.1 ay	51	17	20	22 b	63 y	---	53	5.6	---	14	23	1.43
Bhutan	80	1.2	80	3.6	11.0	---	---	---	10	12	---	---	---	---	---	---	-----
India	77	659.6	210	2.9 y	9.9 wy	---	---	---	36	79 x	---	41	---	---	26 x	---	6.30 ay
Nepal	82	15.0 b	150 b	1.4	---	---	---	---	19	70	---	38	---	---	21	23	3.70 a
Pakistan	82	87.1 b	380 b	2.0	7.0	38	20	24	22	50	41	30	5.9	56	21	15	3.00
Europe, Middle East and North Africa																	
Afghanistan	1977	15.5	-----	1.7	3.7	47	19	15	12	31 by	69	37 b	---	60	8	22 by	1.00 y
Algeria	79	18.3	1,770	3.8 w	12.3	34 a	26 a	21 a	35	83 y	45 a	37	7.0 ?	55 a	29 y	26	3.70 y
Egypt	82	43.3 a	650 a	4.6 w	7.9	31 a	35 a	26 a	44	75 x	80 a	34 a	9.8 a	83 a	43 a	19 a	17.00
Greece	76	9.3	4,140	2.6 w	10.6 b	37	26	21	---	97 by	---	29 b	6.2 ?	---	79 bx	27 by	17.80 by
Iran	79	36.9	-----	5.7 ay	14.1 ay	---	---	---	50	101 ax	---	32 a	---	---	44 ax	24 a	4.90 ay
Iraq	79	12.6	2,710	4.3 ay	6.9 ay	---	---	---	---	100 y	---	28	---	---	45 ay	29 a	9.30 ay
Ireland	81	3.4 b	4,480	6.3 ay	11.8 ay	---	---	---	98	93	94	29	---	96	81	14	11.00
Jordan	81	2.2 b	1,420 b	4.9 w	10.2	19	44	18	70 b	92 a	85	32	15.1	---	69 a	38	8.90
Lebanon	79	2.3	-----	---	18.6 aay	---	---	---	---	96 x	---	19	---	---	46 x	---	27.80 ay
Morocco	84	21.8 b	670 b	6.0 w	22.9	38	43	19	35	57 a	9	31	15.1	---	14 a	38	8.90 t
Oman	85	1.2 b	6,490 b	3.2	12.7 as	---	---	---	30 b ?	71 as	65 a	25 a	---	90	11 a	14 a	
Portugal	86	10.2 b	1,970 b	4.6	11.5	50	26	13	80	125	70	18	16.9	68	55	16	6.00
Romania	78	22.1	2,100	3.4 by	6.2 y	---	---	---	96	106 bx	---	23 b	---	96	84 bx	22 b	10.60 by
Spain	76	37.0	4,920	2.1 y	16.8 y	---	---	---	---	98 by	---	29 b	---	---	67 by	---	24.10 by
Syria	78	8.6	1,170	4.4 p	10.3	34	25	26	58	87 by	80	35 b	---	68	41 by	21 b	12.60
Tunisia	79	6.4	1,130	7.1 p	19.0	42	39	18	62 b	100 x	80	39 b	12.8	30	30 x	30	6.00
Turkey	83	47.5	1,230	3.2	16.2	50	22	24	75 b	110	77	31	6.0	55	26	11	8.00
Yemen A.R.	84	9.3 b	530 b	7.4 p	17.7	80	20	11	21 a	55	28	51	27.8	80	9	20	1.90
Yemen P.D.R.	82	2.0 b	420 b	7.6	9.7	63 a	14 a	8 a	53	61	34	25	22.0 a	46	17	20	2.50
Summary for Developing Countries																	
Number of Countries			84	93	70	69	67	81	92	68	95	65	75	91	88	85	
Range			(1.4-10.0)	(3.7-54.3)	(23-94)	(8-46)	(5-33)	(8-99)	(12-119)	(12-99)	(17-77)	(1.4-67.0)	(10-100)	(1-84)	(8-48)	(0.03-29.0)	
Quartiles: Upper			5.6	21.7	51	36	22	81	98	80	43	20	87	47	26	11.0	
Median			4.0	16.1	43	28	19	53	83	61	35	13	65	26	22	3.7	
Lower			3.0	11.0	38	21	13	25	60	35	28	9	40	14	14	1.0	
Quartile Deviation			1.3	5.4	6.5	7.5	4.5	28.0	19.0	22.5	7.0	5.6	25.5	16.5	3.5	5.0	
Mean			4.4	17.0	46	28	18	52	76	59	36	16	62	31	22	6.9	
Standard Deviation			1.9	8.7	12	10	7	29	27	24	11	13	27	23	7	7.4	
Median			4.0	16.0	43	28	19	53	83	61	35	13	65	26	22	3.7	

Symbols
--- Datum unavailable
. Magnitude nil or negligible
? Datum questionable
0 Inc uses part-time students

Footnotes
A - Datum prior to base year
B - Datum more recent than base year
N - Current prices
Z - Net enrollment ratio
R - Gross enrollment ratio
P - GDP
S - Ministry of Education (MOE) only
T - MOE and state government only
W - Public expenditure only
X - Includes over-age students
Y - UNESCO sources
a - Sector Study Estimate

Source: Columns 1 and 2: World Bank Atlas or Education sector field missions
Columns 3 to 14: World Bank Education sector missions, government sources and/or the UNESCO Statistical Yearbook

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Annex 1 (Continued)

Comparative Education Indicators
August 2, 1968

	Base Year	Pop Mills (1979) (1)	GNP per Capita (US$) (1979) (2)	Percent GNP Devoted to Education (3)	Central Government Expenditure on Education as Percent Total Central Government (4)	Education Recurrent Expenditures Allocated to: Pri (%) (5)	Sec (%) (5)	Hi (%) (5)	Adult Literacy Rate (%) (1976) (6)	Primary Enroll Ratio (%) (7)	Completion Rate for Primary School Cycle (%) (8)	Primary Students /Teacher (9)	Recurrent Unit Cost Primary Education as Percent GNP/Capita (10)	Progression Rate from Primary to Secondary (%) (11)	Secondary Enroll Ratio (%) (12)	Secondary Students /Teacher (13)	Higher Enroll Ratio (%) (14)

Comparative education data are useful in the evaluation of various education systems and analyses of relative stages of educational development between various countries. However, on the basis of the present data, cross-national comparison should be approached with great caution. Data presented in the above table have been collected largely by Bank missions from government sources; the remainder are staff estimates or data from UNESCO. Efforts have been made to standardize definitions and, within limits, to check the accuracy of the data. Nevertheless, such data are still imperfect in several respects and the Bank is working to improve them progressively on the occasion of its operational work. In the use of these data, the following qualifications should be kept in mind:

(1) "Education" as defined in the table includes all education and training, both formal and non-formal.
(2) "Primary" education refers to education at the first level, and "secondary" education refers to all education at the secondary level regardless of type (e.g., general, technical, agricultural).
(3) "Literacy rates" (col. 6) are often obtained from country censuses. In many countries, they are only approximations, and it is doubtful that any uniform definition of "literate" has been followed consistently.
(4) "Public expenditure in education" (cols. 4 and 5) refers to all capital and recurrent expenditures devoted to education by public and quasi-public agencies.
(5) "Enrollment ratios" (cols. 7, 12 and 14) refer to school year and are the percentage of eligible children enrolled full-time in the appropriate school, public and private by level. They are often subject to a wide margin of error in the developing countries owing to variations in the accuracy of basic data (i.e., age-specific population and enrollments). Enrollment figures frequently are higher than the number of students actually in school. Over-aged students may be included in these figures and can inflate the ratios.

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Annex 2: Table 2a

Education Attainment of Population
14 Years and Older

Education Level	1960	1970	1980
No Schooling	8.06	6.90	5.10
Primary Education	75.43	69.20	61.40
- Incomplete	46.68	39.00	29.90
- Complete	28.75	30.20	31.50
Secondary Education	12.62	19.60	26.20
- Incomplete	12.43	12.20	16.40
- Complete	0.19	7.40	9.80
Technical	2.94	-	-
Higher Education	3.32	4.30	7.30
- Incomplete	-	2.50	4.00
- Complete	-	1.80	3.30
Unknown Level	0.57	-	-

Source: Population census 1980, P. XIII and estimates from population census 1960, Table 11.

Annex 2: Table 2b

Latin America: Distribution of Population by Education Attainment
25 Years and Older

Country	Year	No Schooling	Primary		Secondary		Post-Secondary
			Incompl.	Compl.	S-1	S-2	
Argentina	1980	7.1	33.4	33.0	20.4		6.1
Bolivia	1976	48.6	28.5	0. a/	10.8	7.1	5.0
Brazil	1980	32.9	50.4	4.9	6.9	0. a/	5.0
Chile	1970	12.4	57.2	0. a/	26.6	0. a/	3.8
Colombia	1973	22.4	55.9	0. a/	18.4	0. a/	3.3
Ecuador	1982	25.4	17.0	34.1	8.1	7.9	7.6
Paraguay	1972	19.6	57.7	10.3	5.9	4.6	2.0
Peru	1981	24.0	27.3	17.2	10.7	10.7	10.1
Uruguay	1975	9.9	36.7	29.6	17.4	0. a/	6.3
Venezuela	1981	23.5	47.2	0. a/	22.3	0. a/	7.0

a/ Included in next category.

Source: UNESCO statistical yearbook, 1986. Table 1.4

Annex 3

Distribution of the Population and Gross Product Per Capita by Provinces: 1970 and 1980
(Australes, 1987)

Jurisdiction	1970		1980	
	% of Total Population	GPPC	% of Total Population	GPPC
Federal Capital	12.81	11,088.93	10.50	13,201.92
Buenos Aires	37.49	4,380.75	38.71	4,201.33
Catamarca	0.74	1,910.23	0.74	3,095.67
Cordoba	8.82	3,716.65	8.65	4,538.66
Corrientes	2.41	2,820.18	2.36	3,162.29
Chaco	2.42	2,053.27	2.48	2,587.68
Chubut	0.81	6,938.36	0.94	9,749.78
Entre Rios	3.48	3,640.32	3.24	4,176.83
Formosa	1.00	2,218.62	1.05	2,145.92
Jujuy	1.29	2,931.18	1.46	4,780.00
La Pampa	0.74	5,080.25	0.74	5,691.18
la Rioja	0.58	1,915.81	0.58	2,528.18
Mendoza	4.16	4,951.27	4.26	5,233.65
Misiones	1.89	2,078.05	2.08	3,088.43
Neuquen	0.65	5,206.66	0.86	7,370.38
Rio Negro	1.12	4,477.42	1.37	4,886.10
Salta	2.18	2,866.42	2.37	3,327.25
San Juan	1.64	2,563.18	1.69	3,038.16
San Luis	0.79	3,477.21	0.77	4,210.81
Santa Cruz	0.36	7,720.20	0.41	10,507.83
Santa Fe	9.15	4,735.68	8.83	5,579.56
Santiago de Estero	2.11	2,003.12	2.34	2,286.82
Tucuman	3.27	3,281.57	3.47	4,300.34
Tierra de Fuego	0.06	6,286.99	0.10	8,434.92

Source: Consejo Federal de Inversiones.

Annex 4

Completion Rates, 1950-1980
Primary Education

Education Cycle	Completion Rates
1950-1956	33.9
1951-1957	34.1
1952-1958	34.5
1953-1959	34.5
1954-1960	35.1
1955-1961	35.8
1956-1962	38.3
1957-1963	38.4
1958-1964	39.4
1959-1965	40.7
1960-1966	41.4
1961-1967	42.3
1962-1968	42.8
1963-1969	45.0
1964-1970	44.5
1965-1971	46.2
1966-1972	46.4
1967-1973	48.1
1968-1974	48.7
1969-1975	49.8
1970-1976	50.6
1971-1977	52.2
1972-1978	52.4
1973-1979	53.4
1974-1980	53.7

Source: MEJ: Retención y Desgranamiento Cohorte 1974-1980, Educación Primaria Comun.

Annex 5

An Evaluation of Education in Buenos Aires

During 1984 and 1985, the Municipality of Buenos Aires undertook the evaluation of the "Diseño Curricular 1981," a new curriculum developed for primary schools. The main objective of the study was to evaluate the achievement level of third, fifth and seventh grade students regarding the curriculum objectives in four basic areas: mathematics, language, social sciences and natural sciences. The results of the evaluation show low achievement levels for all curriculum areas. Students were able to achieve less than half of the objectives of the new curriculum in the evaluated areas. Among the four curriculum areas, students obtained the highest results for language, and the lowest for natural sciences. Comparing achievement across grades, third grade student achievement surpassed those of fifth and seventh grade. Seventh grade students obtained the lowest results. In general, following the evaluation team conclusions, many of the curriculum objectives were high for the cognitive stage of the students, teachers had too many subjects to cover which often were not appropriately connected to each other. Furthermore, the new curriculum continued to promote rote memory and repetition instead of developing analysis and hypothesis testing. Finally, teachers were not appropriately trained to use the new curriculum which intended to change radically the old traditional teaching methods. The team advice was to reevaluate the curriculum in light of the new evaluation results, and with the participation of teachers and parents, in addition to curriculum experts.

The already undertaken reevaluation provided the following conclusions: the objectives developed by the 1981 curriculum for language should be completely modified; most of the objectives in the areas of social science and natural sciences should be changed; and only a few of the objectives in mathematics should be modified.

Annex 6: Table 6a

Elementary Education: Pupil-Teacher Ratio

Jurisdiction	1966	1970	1975	1980	1985	1986
Argentina	20	19	18	19	19	19
Federal Capital	16	15	14	14	14	14
Buenos Aires	20	19	18	23	23	22
- Greater Buenos Aires Counties	22	21	-	-	25	24
- Other Counties	18	16	-	-	20	20
Catamarca	18	17	14	14	16	15
Cordoba	19	19	18	17	19	18
Corrientes	20	19	18	19	16	16
Chaco	23	21	19	19	17	17
Chubut	20	20	16	19	17	16
Entre Rios	20	19	18	16	18	17
Formosa	24	22	21	21	18	18
Jujuy	21	21	20	19	19	18
La Pampa	14	14	13	14	13	13
La Rioja	17	17	15	16	18	18
Mendoza	20	20	17	21	20	20
Misiones	22	22	21	22	18	20
Neuquen	22	22	19	19	15	15
Rio Negro	20	20	15	15	12	13
Salta	22	21	19	19	20	20
San Juan	19	19	18	18	18	18
San Luis	16	16	14	11	24	18
Santa Cruz	17	18	15	16	15	14
Santa Fe	21	20	19	17	18	19
Santiago del Estero	20	20	18	16	16	17
Tierra del Fuego	19	20	18	16	13	13
Tucuman	20	19	16	16	16	16

Source: Education sector study.

Annex 6: Table 6b

Public Elementary: Pupil-Teacher Ratio

Jurisdiction	1966	1970	1975	1980	1985	1986
Argentina	19	19	17	19	18	18
Federal Capital	14	13	-	12	12	12
Buenos Aires	19	19	-	24	23	22
- Greater Buenos Aires Counties	22	22	-	-	26	24
- Other Counties	17	15	-	-	20	19
Catamarca	18	17	-	14	15	15
Cordoba	-	-	-	-	-	-
Corrientes	20	19	-	19	16	16
Chaco	23	21	-	19	16	17
Chubut	20	20	-	18	17	16
Entre Rios	20	19	-	15	17	16
Formosa	24	22	-	21	18	18
Jujuy	21	21	-	18	18	18
La Pampa	14	14	-	13	12	13
La Rioja	18	17	-	16	18	18
Mendoza	20	20	-	19	19	20
Misiones	21	22	-	22	18	20
Neuquen	22	22	-	19	15	15
Rio Negro	20	20	-	20	15	14
Salta	22	21	-	20	20	20
San Juan	19	19	-	18	18	18
San Luis	16	16	-	11	23	18
Santa Cruz	17	18	-	15	14	13
Santa Fe	20	20	-	16	18	19
Santiago del Estero	21	20	-	16	16	17
Tierra del Fuego	21	22	-	15	13	13
Tucuman	20	-	-	-	-	-

Source: Education sector study.

Annex 6: Table 6c

Private Elementary: Pupil-Teacher Ratio

Jurisdiction	1966	1970	1975	1980	1985	1986
Argentina	21	19	20	19	21	21
Federal Capital	19	18	-	17	21	20
Buenos Aires	22	20	-	20	24	24
- Greater Buenos Aires Counties	22	20	-	-	24	25
- Other Counties	23	20	-	-	22	23
Catamarca	24	17	-	-	24	24
Cordoba	19	19	-	21	20	19
Corrientes	23	20	-	21	18	16
Chaco	23	21	-	20	22	18
Chubut	23	20	-	20	18	20
Entre Rios	26	20	-	21	21	21
Formosa	27	26	-	20	25	19
Jujuy	25	23	-	23	24	24
La Pampa	18	16	-	16	19	17
La Rioja	10	14	-	17	18	17
Mendoza	19	18	-	288	22	22
Misiones	25	22	-	23	19	21
Neuquen	21	23	-	19	14	15
Rio Negro	25	20	-	-	-	17
Salta	23	20	-	19	20	20
San Juan	17	19	-	20	21	20
San Luis	16	17	-	-	26	23
Santa Cruz	15	18	-	17	18	19
Santa Fe	24	21	-	19	18	19
Santiago del Estero	16	19	-	17	15	15
Tierra del Fuego	16	16	-	18	20	20
Tucuman	21	19	-	20	22	21

Source: Education sector study.

Annex 7

Expenditures by Cooperadoras: Secondary Education
(Australes, 1987)

Jurisdiction	Total Expenditure	Share by Purpose (%)			
		Tuition	Materials	Construction	Maintenance
Federal Capital	1,426,248.07	19.00	29.06	12.36	39.60
Buenos Aires	7,358,283.73	24.42	35.46	22.83	17.28
Catamarca	178,319.73	37.26	33.33	14.45	14.96
Cordoba	708,967.41	14.88	42.00	24.99	18.14
Corrientes	323,637.23	14.98	48.43	19.44	16.94
Chaco	198,156.51	3.14	43.43	46.11	7.32
Entre Rios	1,317,589.86	24.93	32.56	23.59	18.93
Formosa	101,575.18	18.24	42.41	17.04	22.31
Jujuy	58,575.52	20.20	53.73	14.33	11.75
La Pampa	326,498.56	17.90	35.98	25.28	20.89
la Rioja	130,364.38	14.15	42.01	21.60	22.24
Mendoza	387,614.58	23.04	25.79	15.12	36.34
Rio Negro	143,280.35	14.34	69.01	4.61	12.14
Salta	360,839.71	19.77	33.21	32.46	14.22
San Juan	249,729.83	14.34	56.12	14.91	14.64
San Luis	289,711.11	41.25	26.90	14.03	17.82
Santa Fe	2,917,000.56	29.11	27.48	29.40	14.01
Santiago de Estero	304,908.18	23.60	28.90	20.11	27.40
TOTAL	16,781,300.50	20.81	39.21	20.70	19.27

Note: Shares are averages for each province.

Source: Education Sector Study.

Annex 8

Evolution of Enrollments by Education Level and by Authority: 1961-1988

(Percent)

		Primary				Secondary				Non-University				University			
Year	Total	Nat'l	Prov.	Priv.	Total	Nat'l	Prov.	Priv.	Total	Nat'l	Prov.	Priv.	Total	Nat'l	Prov.	Priv.	Total
1961	100	36.8	51.0	12.2	100	59.3	13.9	26.8	100	36.8	52.6	10.6	100	97.5	-	2.5	100
1965	100	34.8	51.1	14.1	100	51.3	16.9	31.8	100	41.6	29.2	29.2	100	93.2	0.5	6.3	100
1970	100	29.6	54.6	15.8	100	47.8	19.4	32.8	100	31.6	34.2	34.2	100	84.0	1.3	14.7	100
1975	100	27.7	54.7	17.6	100	46.2	22.8	31.0	100	38.4	33.3	28.3	100	89.2	0.4	10.4	100
1980	100	3.4	77.8	18.8	100	45.2	24.1	30.7	100	39.3	28.8	31.9	100	81.4	0.3	18.3	100
1985	100	2.6	77.8	19.7	100	44.9	25.8	29.3	100	31.9	35.1	33.0	100	88.3	0.3	11.4	100

Source: FIEL (1988).

Annex 9

Completion Rates, 1951-1979
Secondary Education
(Percent)

Education Cycle	Completion Rates
1951-1955	66.1
1952-1956	69.6
1953-1957	59.4
1954-1958	59.5
1955-1959	55.8
1956-1960	60.6
1957-1961	56.5
1958-1962	54.9
1959-1963	55.8
1960-1964	56.6
1961-1965	59.2
1962-1966	61.9
1963-1967	62.4
1964-1968	60.5
1965-1969	62.1
1966-1970	59.8
1967-1971	59.4
1968-1972	60.4
1969-1973	64.7
1970-1974	66.5
1971-1975	65.8
1972-1976	66.6
1973-1977	64.9
1974-1978	60.5
1975-1979	60.0

Source: MEJ: Retención y Desgranamiento, Cohorte 1975-1979, Educación Media, Ciclo basico-bachilleratos.

Annex 10

Secondary Education Completion Ratios by Jurisdiction
1975-1979 Cohort
(Percent)

Jurisdiction	Total
Argentina	60.0
Federal Capital	78.1
Buenos Aires	62.6
- Greater Buenos Aires Counties	66.6
- Other Counties	58.5
Catamarca	51.9
Cordoba	58.4
Corrientes	60.3
Chaco	50.6
Chubut	53.5
Entre Rios	54.2
Formosa	40.0
Jujuy	49.4
La Pampa	53.7
La Rioja	44.9
Mendoza	39.9
Misiones	36.2
Neuquen	71.8
Rio Negro	48.5
Salta	46.9
San Juan	59.1
San Luis	68.3
Santa Cruz	53.6
Santa Fe	67.5
Santiago del Estero	44.7
Tierra del Fuego	31.4
Tucuman	62.6

Source: MEJ: Retención y desgranamiento, cohorte 1975-1979, Educación media, ciclo basico-bachillerato.

Annex 11

Teacher Dedication- Secondary Education: 1986
(Percent)

Jurisdiction	Area	Full Time	Part Time			
			30 hrs	24 hrs	18 hrs	12 hrs
Total Nation	Urban	5.19	8.92	9.46	21.15	55.28
	Rural	5.10	12.86	6.07	12.14	63.83
	Total	5.19	9.00	9.39	20.97	55.45
Federal Capital	Total	3.86	9.01	10.76	30.08	46.28
Buenos Aires	Urban	5.14	8.30	8.96	20.07	57.53
	Rural	11.18	1.32	5.26	12.50	69.74
	Total	5.24	8.18	8.90	19.95	57.73
- Greater Buenos Aires Counties	Urban	4.32	9.70	9.58	19.81	56.59
	Rural	12.10	0.00	2.42	11.29	74.19
	Total	4.49	9.50	9.43	19.63	56.96
- Other Counties	Urban	6.67	5.66	7.81	20.57	59.29
	Rural	7.14	7.14	17.86	17.86	50.00
	Total	6.68	5.68	7.90	20.54	59.21
Catamarca	Total	8.71	4.84	9.03	11.29	66.13
Cordoba	Total	2.60	11.71	8.53	18.62	58.55
Corrientes	Total	9.86	15.77	12.11	20.28	41.97
Chaco	Total	9.43	16.98	9.43	20.75	43.40
Chubut	Total	17.65	11.76	11.76	21.57	37.25
Entre Rios	Total	5.55	10.76	16.13	22.86	44.761
Formosa	Total	16.03	20.61	11.45	18.32	33.59
Jujuy	Total	3.56	3.18	6.55	18.754	68.16
La Rioja	Total	11.89	14.10	11.45	15.86	46.70
Mendoza	Urban	2.42	5.01	4.83	12.97	74.78
	Rural	0.00	87.50	0.00	0.00	12.50
	Total	2.38	6.17	4.76	12.79	73.90

Annex 11 (Continued)

Teacher Dedication- Secondary Education: 1986
(Percent)

Jurisdiction	Area	Full Time	Part Time			
			30 hrs	24 hrs	18 hrs	12 hrs
Misiones	Urban	7.33	8.67	10.67	24.00	49.33
	Rural	8.70	4.35	21.74	26.09	39.13
	Total	7.51	8.09	12.14	24.28	47.98
Neuquen	Total	11.49	13.51	17.57	20.95	36.49
Rio Negro	Total	0.00	0.00	3.57	7.14	89.29
Salta	Total	1.32	3.74	10.33	18.02	66.59
San Juan	Urban	11.18	23.96	6.71	23.00	35.14
	Rural	0.00	33.00	4.00	10.00	53.00
	Total	8.47	26.15	6.05	19.85	39.47
San Luis	Urban	3.35	5.59	8.94	11.73	70.39
	Rural	0.00	2.44	2.44	17.07	78.05
	Total	2.73	5.00	7.73	12.73	71.82
Santa Cruz	Total	0.00	0.00	4.76	9.52	85.71
Santa Fe	Total	0.00	0.00	0.00	3.03	96.97
Santiago del Estero	Total	12.24	9.64	10.42	23.70	44.01
Tierra del Fuego	Total	36.84	7.02	15.79	10.53	29.82
Tucuman	Urban	9.08	7.85	12.31	22.46	48.31
	Rural	0.00	0.00	6.45	0.00	93.55
	Total	8.66	7.49	12.04	21.44	50.37

Source: Education sector study.

Annex 12

Rates of Return to Education
(Percent)

Levels	1974	1980	1985
Average			
Primary	17.5	16.6	14.4
Secondary	10.2	9.3	8.4
Higher	8.7	8.7	6.7
Federal Capital			
Primary	20.4	15.4	16.0
Secondary	9.2	10.8	9.7
Higher	8.3	7.1	6.8
Greater Buenos Aires			
Primary	17.8	11.3	13.9
Secondary	9.3	12.4	10.3
Higher	5.7	8.8	7.9
Cordoba			
Primary	14.2	23.0	15.2
Secondary	12.0	9.2	5.0
Higher	11.0	9.0	5.5
Mendoza			
Primary	-	-	11.0
Secondary	-	-	6.9
Higher	-	-	6.4
Santa Fe			
Primary	-	16.7	15.2
Secondary	-	4.8	9.1
Higher	-	10.0	-

Source: Petrei, A. H. and Delfino, J. A. (1988).

Annex 13

Education and Income Distribution

Several studies have analyzed the relationship between education and income distribution. Some of them concentrate on the relative importance of education in the determination of income distribution vis-a-vis other socioeconomic factors; others analyze the distributional effect of public educational expenditure. Dieguez and Petrecolla (1982) test the role that certain socioeconomic factors play in the determination of household income in Gran Buenos Aires. Among the eight socioeconomic variables used in the analysis: two variables related to the household (size and capital ownership); and five related to the head of household (age, sex, level of education, occupation, occupational situation, and branch of activity); level of education and occupation were found to be the most important factors determining household income inequalities in Buenos Aires.

Petrei (1987) and Shulthess (1985) concentrate on the distributive effect of public subsidies to education, health, social security, housing, and water and sewage sectors. Petrei's analysis includes five Latin American countries (Argentina, Costa Rica, Chile, Dominican Republic and Uruguay). His results indicate that subsidies to education, health, and social security, have a higher effect on income distribution than the other sectors. Results of the education sector were found to be fundamentally influenced by the effect of basic education subsidies on income distribution and, to a lesser degree, by secondary education subsidies. In five of the regions analyzed in Argentina, subsidies to higher education were found to aggravate the distribution of income. Schulthess' findings point in the same direction. Among his results, the most important include: (i) education expenditures in general favor people from lower economic status; (ii) private education in particular favors people with medium and higher incomes; and (iii) expenditures in higher education favor families with higher income.

Annex 14

Actual Expenditures as Percent of Budget

Year	Central Administration		Special Accounts		Decentralized Organizations	
	Current	Capital	Current	Capital	Current	Capital
1976	100.0	100.0	34.5	88.8	93.0	76.0
1980	99.4	107.0	49.3	71.2	92.0	75.0
1982	100.0	100.0	78.4	88.8	98.0	84.0
1985	100.0	100.0	67.3	83.5	92.0	75.0

Source: FIEL (1986).

Annex 15

Total Public Expenditure in Education as a Percentage of GDP

Year	Percent
1970	2.70
1975	2.26
1977	2.20
1978	3.10
1979	3.00
1980	3.50
1981	3.30
1982	2.70
1983	3.40
1984	3.70
1985	3.60
1986	3.40

Source: Annex Table 19.

Annex 16: Table 16a

National Government Distribution of Expenditure
(Percent)

Year	Current Expenditures				Capital Expenditures
	Personnel	Transfers	Other	Total	
1970	86.1	-	4.9	91.0	9.0
1975	89.6	-	4.9	94.5	5.5
1976	71.7	11.3	7.0	90.0	10.0
1980	67.3	19.2	5.1	91.6	8.3
1985	61.4	19.1	10.4	90.9	8.8
1986	58.0	17.2	13.0	88.2	11.0

Source: 1970 and 1975: Beccaria et al (1985).
1976-1986: FIEL (1986).

Annex 16: Table 16b

Distribution of Expenditures by Provincial Governments
Selected Provinces
(Percent)

Jurisdiction	Year	Current Expenditures				Capital	Total
		Salaries	Transfers	Other	Total		
Buenos Aires	1977	75.07	11.87	13.06	96.55	3.45	100.00
	1980	78.07	13.83	8.10	99.57	0.43	100.00
	1985	77.76	20.24	2.00	99.32	0.68	100.00
	1986	81.99	19.94	1.07	99.78	0.22	100.00
	1987	87.34	6.65	6.01	95.09	4.91	100.00
Chaco	1979	96.02	0.00	3.98	98.91	1.09	100.00
	1980	97.70	0.16	2.14	99.89	0.11	100.00
	1985	98.95	0.05	1.00	100.00	0.00	100.00
	1986	98.63	0.04	1.33	99.42	0.58	100.00
	1987	98.41	0.03	1.56	99.79	0.21	100.00
Corrientes	1977	79.92	0.03	20.05	96.64	3.36	100.00
	1980	90.00	0.13	9.87	97.00	3.00	100.00
	1985	93.49	0.11	6.40	98.85	1.15	100.00
	1986	93.56	0.14	6.30	99.07	0.93	100.00
	1987	96.68	0.08	3.24	99.62	0.38	100.00
Entre Rios	1977	72.94	17.01	10.05	92.40	7.60	100.00
	1980	85.26	13.03	1.71	99.20	0.80	100.00
	1985	82.22	15.06	2.72	99.36	0.64	100.00
	1986	80.90	15.51	3.59	98.30	1.70	100.00
Misiones	1977	97.46	0.00	2.54	99.43	0.57	100.00
	1980	98.34	0.00	1.66	99.52	0.48	100.00
	1985	99.22	0.00	0.78	99.99	0.01	100.00
	1986	98.28	0.00	1.72	99.42	0.58	100.00
	1987	98.25	0.00	1.75	99.84	0.16	100.00
Salta	1977	67.89	2.13	29.98	71.7	28.3	100.00
	1980	0.00	0.00	0.00	0.00	0.00	0.00
	1985	94.59	1.19	4.22	99.3	0.7	100.00
	1986	92.55	1.78	5.67	97.8	2.2	100.00
Santa Fe	1977	71.34	16.82	2.66	90.8	9.1	100.00
	1980	80.21	14.75	5.04	96.0	4.1	100.00
	1985	79.44	18.72	1.84	99.0	1.0	100.00
	1986	76.90	21.01	2.09	99.3	0.7	100.00

Source: Education sector study.

Annex 17: Table 17a

Primary Education Teacher Monthly Salaries
(Australes, 1987)

Year/Month		Teacher with No Experience	Teacher with 15 Years	Teacher with 24 Years
1970:	March	403.24	596.79	661.31
	June	403.24	596.79	661.31
	September	403.24	596.79	661.31
	December	403.24	596.79	661.31
1971:	March	295.47	437.29	484.56
	June	295.47	437.29	484.56
	September	385.39	570.38	632.04
	December	385.39	570.38	632.04
1972:	March	291.63	431.63	478.29
	June	291.63	431.63	478.29
	September	291.63	431.63	478.29
	December	291.63	431.63	478.29
1973:	March	186.38	275.85	305.67
	June	382.00	611.20	687.60
	September	382.00	611.20	687.60
	December	382.00	611.20	687.60
1974:	March	311.32	498.11	560.37
	June	311.32	498.11	560.37
	September	311.32	498.11	560.37
	December	639.86	890.24	1,001.52
1975:	March	279.10	388.32	436.86
	June	740.35	1,029.60	1,158.30
	September	740.35	1,029.60	1,158.30
	December	740.35	1,029.60	1,158.30
1976:	March	246.24	342.60	385.43
	June	283.19	394.01	443.26
	September	339.27	472.03	531.02
	December	339.27	472.03	531.02
1977:	March	187.78	261.26	293.92
	June	231.11	321.55	361.74
	September	310.95	432.63	486.71
	December	374.72	521.35	586.52

Annex 17: Table 17a (Continued)

Primary Education Teacher Monthly Salaries
(Australes, 1987)

Year/Month		Teacher with No Experience	Teacher with 15 Years	Teacher with 24 Years
1978:	March	246.43	342.86	385.72
	June	365.00	507.81	571.30
	September	497.47	692.13	778.64
	December	497.47	692.13	778.64
1979:	March	272.06	378.52	425.84
	June	375.34	522.21	587.49
	September	525.56	731.22	822.62
	December	525.56	731.22	822.62
1980:	March	362.02	503.67	566.63
	June	362.02	503.67	566.63
	September	604.88	841.57	946.77
	December	604.88	841.57	946.77
1981:	March	346.45	482.01	542.26
	June	419.21	583.25	656.16
	September	419.21	583.25	656.16
	December	419.21	583.25	656.16
1982:	March	142.95	198.89	223.75
	June	142.95	198.89	223.75
	September	370.59	508.20	599.93
	December	626.75	872.00	981.00
1983:	March	165.28	229.95	258.69
	June	217.39	302.46	340.26
	September	784.52	1,067.32	1,401.05
	December	925.14	1,415.90	1,862.84
1984:	March	149.73	227.46	282.99
	June	298.58	453.61	557.55
	September	540.87	803.56	991.19
	December	950.19	1,615.33	2,090.42
1985:	March	214.05	363.88	470.90
	June	411.21	699.06	904.67
	September	411.21	699.06	904.67
	December	411.21	699.06	904.67

Annex 17: Table 17a (Continued)

Primary Education Teacher Monthly Salaries
(Australes, 1987)

Year/Month		Teacher with No Experience	Teacher with 15 Years	Teacher with 24 Years
1986:	March	299.24	466.82	586.51
	June	314.21	490.17	615.85
	September	342.71	534.64	671.70
	December	357.93	558.38	701.55
1987:	March	223.53	380.00	491.77
	June	236.96	402.84	521.32
	September	336.66	572.32	740.65
	December	380.10	646.17	836.22
1988:	March	550.24	935.41	1,210.53

Source: Education sector study.

Annex 17: Table 17b

Secondary Education Teacher Monthly Salaries
(Australes, 1987)

Year/Month		Full Time			Part Time		
		Experience					
		None	15 Years	24 Years	None	15 Years	24 Years
1970:	March	691.26	1,057.65	1,179.76	414.76	615.27	682.10
	June	691.26	1,057.65	1,179.76	414.76	615.27	682.10
	September	691.26	1,057.65	1,179.76	414.76	615.27	682.10
	December	691.26	1,057.65	1,179.76	414.76	615.27	682.10
1971:	March	578.87	885.67	987.94	347.32	515.22	571.11
	June	578.87	885.67	987.94	347.32	515.22	571.11
	September	660.67	1,010.82	1,127.54	396.40	587.99	651.86
	December	723.59	1,107.09	1,234.92	434.15	643.99	713.94
1972:	March	476.90	729.66	813.91	286.14	424.44	470.54
	June	549.39	840.56	937.65	329.63	488.96	542.06
	September	549.39	840.56	937.65	329.63	488.96	542.06
	December	618.06	945.66	1,054.84	370.84	550.07	616.18
1973:	March	592.51	948.01	1,066.51	296.25	474.01	533.26
	June	687.60	1,100.16	1,237.68	343.80	550.08	618.84
	September	687.60	1,100.16	1,237.68	343.80	550.08	618.84
	December	687.60	1,100.16	1,237.68	343.80	550.08	618.84
1974:	March	560.37	896.60	1,008.67	280.19	448.30	655.64
	June	628.56	1,005.69	1,131.41	314.29	502.86	1,738.35
	September	628.56	1,005.69	1,131.41	314.29	502.86	1,738.35
	December	728.48	1,165.59	1,311.28	364.24	582.79	1,738.35
1975:	March	256.65	410.65	461.98	128.33	205.33	230.99
	June	680.49	1,088.90	1,224.88	340.25	544.39	612.44
	September	680.49	1,088.90	1,224.88	340.25	544.39	612.44
	December	680.49	1,088.90	1,224.88	340.25	544.39	612.44
1976:	March	173.33	277.33	311.99	86.66	138.66	156.00
	June	306.19	489.90	551.16	169.46	271.13	305.02
	September	391.50	626.39	704.70	203.01	324.82	365.41
	December	391.50	626.39	704.70	203.01	324.82	365.41
1977:	March	277.44	443.90	499.31	138.72	221.95	249.70
	June	341.47	546.35	614.64	170.73	273.17	307.32
	September	457.78	732.45	824.00	228.89	366.22	412.00
	December	556.11	889.77	1,000.99	278.05	444.89	500.50

Annex 17: Table 17b (Continued)

Secondary Education Teacher Monthly Salaries
(Australes, 1987)

Year/Month		Full Time			Part Time		
		Experience					
		None	15 Years	24 Years	None	15 Years	24 Years
1978:	March	364.43	583.09	655.98	182.22	291.55	327.99
	June	545.44	872.70	981.78	272.72	436.35	490.89
	September	743.40	1,189.44	1,338.11	371.70	594.72	669.06
	December	743.40	1,189.44	1,338.11	371.70	594.72	669.06
1979:	March	406.56	650.49	731.80	203.28	325.25	365.90
	June	560.89	897.43	1,009.66	280.45	448.72	528.25
	September	785.38	1,256.61	1,413.69	392.69	628.30	706.84
	December	785.38	1,256.61	1,413.69	392.69	628.30	706.84
1980:	March	541.52	866.44	974.74	270.76	433.24	487.37
	June	725.99	1,161.58	1,306.77	362.99	580.79	653.39
	September	907.53	1,452.05	1,633.55	453.76	726.02	816.78
	December	907.53	1,452.05	1,633.55	453.76	726.02	816.78
1981:	March	519.79	831.67	935.63	259.90	415.83	467.81
	June	628.96	1,006.34	1,132.14	314.48	503.17	566.07
	September	762.78	1,220.45	1,373.01	381.39	610.23	686.51
	December	967.06	1,547.29	1,740.70	483.53	773.64	870.35
1982:	March	329.76	527.62	593.57	164.88	263.81	296.79
	June	329.76	527.62	593.57	164.88	263.81	296.79
	September	536.96	774.39	853.53	254.35	373.07	412.64
	December	874.91	1,399.86	1,574.84	437.46	699.93	787.42
1983:	March	217.62	348.19	391.71	108.81	174.09	195.86
	June	297.73	484.44	535.92	148.87	238.19	267.96
	September	793.36	1,024.83	1,198.31	396.68	512.41	599.16
	December	1,053.35	1,790.70	2,317.37	671.00	1,077.97	1,368.67
1984:	March	305.45	488.52	619.29	152.73	244.26	309.65
	June	429.01	686.15	869.81	186.24	314.80	406.60
	September	725.19	1,140.07	1,436.43	362.59	570.04	718.21
	December	1,046.19	1,778.52	2,301.62	523.10	889.26	1,150.81
1985:	March	235.67	400.64	518.48	117.83	200.32	2,592.50
	June	518.90	882.17	1,141.60	259.47	441.08	570.82
	September	518.90	882.17	1,141.60	259.47	441.08	570.82
	December	518.90	882.17	1,141.60	259.47	441.08	570.82

Annex 17: Table 17b (Continued)

Secondary Education Teacher Monthly Salaries
(Australes, 1987)

Year/Month		Full Time			Part Time		
		Experience					
		None	15 Years	24 Years	None	15 Years	24 Years
1986:	March	302.19	513.73	664.83	151.10	256.85	332.40
	June	317.00	538.89	697.39	158.50	269.44	348.69
	September	360.87	613.48	793.92	180.44	306.74	396.96
	December	404.20	687.15	889.25	202.10	343.58	444.63
1987:	March	283.39	481.76	623.46	125.44	213.55	275.97
	June	311.55	529.64	685.41	132.89	225.91	292.36
	September	432.96	736.03	952.51	216.48	368.02	475.24
	December	554.40	942.48	1,219.68	277.20	471.24	609.84

Source: Education sector study.

Annex 18: Table 18a

Public Expenditure per Student/Year by Provincial Governments
Selected Provinces: Pre-Primary and Primary Education
(Australes, 1987)

Provinces	1978	1979	1980	1985	1986
Buenos Aires					
- Pre-Primary	613	696	955	680	678
- Primary	522	530	647	439	424
Chaco					
- Pre-Primary and - Primary	-	702	775	715	747
Corrientes					
- Pre-Primary and - Primary	689	644	849	917	947
Entre Rios					
- Pre-Primary	764	782	1,248	882	1,043
- Primary	701	731	996	709	812
Misiones					
- Pre-Primary and - Primary	109	466	358	486	501
Salta					
- Pre-Primary and - Primary	668	778	860	741	926
Santa Fe					
- Pre-Primary	1,306	1,239	1,563	878	936
- Primary	704	694	918	745	768

Note: Transfers to private sector were excluded.

Source: Education sector study.

Annex 18: Table 18b

Public Expenditure per Student/Year by Provincial Governments
Selected Provinces: Secondary and Non-University Education
(Australes, 1987)

Provinces	1978	1979	1980	1985	1986
Buenos Aires					
- Secondary	1,069	1,215	1,514	1,079	1,097
- Non-University	1,958	1,803	2,214	1,242	1,125
Chaco					
- Secondary and - Non-University	n/a	1,593	2,115	1,459	1,498
Corrientes					
- Secondary and - Non-University	1,574	1,466	1,947	1,557	1,337
Entre Rios					
- Secondary	1,417	1,514	1,753	1,534	1,681
- Non-University	869	1,615	1,317	596	1,993
Misiones					
- Secondary	782	1,432	1,266	840	985
- Non-University	789	1,075	1,431	708	783
Salta					
- Secondary	1,003	1,079	n/a	1,156	1,702
- Non-University	1,969	937	n/a	1,413	1,295
Santa Fe					
- Secondary	1,267	1,401	2,350	1,209	1,201
- Non-University	1,720	2,532	3,057	1,371	1,112

Note: Transfers to private sector were excluded.

Source: Education sector study.

Annex 19: Table 19a

Total Public Expenditure on Education: 1970-1986
(Thousand Australes, 1987)

Year	Primary	Secondary	Higher	Other	Total
1970	2,010,474.0	989,899.9	642,163.1	665,942.3	4,308,479.3
1975	1,664,594.0	704,183.6	574,805.3	1,596,358.0	4,539,940.9
1977	2,307,887.7	1,470,084.8	660,675.9	93,244.4	4,531,892.7
1978	3,288,260.6	1,881,322.9	856,112.9	171,740.3	6,197,436.7
1979	3,163,460.4	2,108,855.6	933,830.4	168,452.3	6,374,598.7
1980	3,772,505.2	2,465,557.6	1,115,776.7	237,741.1	7,591,580.7
1981	3,170,329.8	2,307,049.9	1,056,035.8	210,061.8	6,743,477.3
1982	2,379,988.1	1,694,586.0	769,191.9	152,340.3	4,996,106.3
1983	3,104,238.7	2,158,297.4	984,289.7	260,349.0	6,507,174.8
1984	4,010,161.6	2,488,242.5	1,063,391.0	209,927.9	7,771,723.0
1985	3,908,348.1	2,179,320.0	1,019,235.8	223,536.2	7,330,440.1
1986	4,101,712.6	2,039,479.9	945,582.4	164,182.0	7,250,956.9

Source: Education Sector Study.

Annex 19: Table 19b

Expenditure by Provinces by Level of Education: 1977-1987
(Thousand Australes, 1987)

Year	Primary	Secondary	Higher	Total
1977	1,019,919.9	307,100.1	24,676.4	1,351,696.5
1978	1,667,249.2	360,614.2	38,100.8	2,066,144.1
1979	1,871,502.8	439,155.6	41,793.5	2,352,451.9
1980	2,243,517.2	508,476.2	49,668.4	2,801,661.8
1981	1,911,189.0	502,545.4	49,807.7	2,463,542.1
1982	1,442,093.1	377,494.3	36,839.5	1,856,426.9
1983	1,874,193.7	459,587.4	56,170.0	2,389,951.1
1984	2,430,465.3	560,791.7	67,837.0	3,059,094.0
1985	2,379,433.9	548,017.1	74,274.6	3,001,725.6
1986	2,455,965.6	579,295.5	78,887.6	3,114,148.7

Source: Data from 12 provinces, MEJ.

Annex 19: Table 19c

Expenditures by Provinces by Level of Education: 1977-1987
(Thousand Australes, 1987)

Year	Primary	Secondary	Higher	Total a/
1970	1,186,174.0	441,299.9	37,763.1	1,693,579.3
1977	1,631,871.9	491,360.2	39,482.3	2,162,714.4
1978	2,667,886.7	576,982.7	60,961.2	3,305,830.6
1979	2,994,404.5	702,648.9	66,869.6	3,763,923.0
1980	3,589,627.5	813,561.9	79,469.5	4,482,658.8
1981	3,057,902.4	804,072.7	79,692.4	3,941,667.4
1982	2,307,349.0	603,990.9	58,943.1	2,970,283.0
1983	2,998,709.9	735,339.8	89,872.0	3,823,921.7
1984	3,888,744.5	897,266.7	108,539.2	4,894,550.3
1985	3,807,094.2	876,827.4	118,839.4	4,802,760.9
1986	3,929,545.0	926,872.8	126,220.1	4,982,638.0

a/ Includes other expenditure not classified by level of education.

Source: Education Sector Study.

Annex 19: Table 19d

National Government Expenditure by Level of Education
(Millions Australes, 1987)

Year	Culture	Education			Non-Discr.	Total
		Primary	Secondary	Higher		
1961	19.5	488.1	278.8	497.4	149.1	1,433.0
1965	38.4	627.0	281.1	540.2	578.6	2,065.4
1970	81.9	824.3	848.6	604.4	255.7	2,614.9
1975	66.5	1,286.4	1,483.3	1,100.4	66.3	4,002.9
1976	35.7	681.5	914.1	588.2	64.2	2,283.8
1977	30.3	676.0	978.7	621.2	63.0	2,369.2
1978	48.7	620.4	1,304.3	795.2	123.1	2,891.6
1979	48.6	169.1	1,406.2	867.0	119.9	2,610.7
1980	54.9	182.9	1,652.0	1,036.3	182.9	3,108.9
1981	47.3	112.4	1,503.0	976.3	162.7	2,801.8
1982	39.3	72.6	1,090.6	710.2	113.0	2,025.8
1983	45.9	105.5	1,423.0	894.4	214.4	2,683.3
1984	57.3	121.4	1,591.0	954.9	152.6	2,877.2
1985	65.9	101.3	1,302.5	900.4	157.6	2,527.7
1986	60.8	172.2	1,112.6	819.4	103.4	2,268.3
1987	84.7	152.5	1,188.9	1,813.5	87.9	3,327.5

Source: MEJ.

Annex 20: Table 20a

Primary Education Expenditure by Provincial Governments

(Thousand Australes, 1987)

Year	Buenos Aires	Misiones	Santa Fe	Chaco	Córdoba	Corrientes	Formosa	Jujuy	Mendoza	Entre Rios	Salta	Santiago	Total
1977	454,357.7	12,836.0	119,807.1	n/a	110,518.5	39,628.2	13,586.3	24,136.4	96,498.2	70,691.1	47,489.7	30,790.6	1,019,919.9
1978	670,663.6	n/a	221,220.2	n/a	168,816.4	88,518.0	25,394.6	46,924.3	160,785.3	109,000.0	83,037.6	93,067.1	1,667,429.2
1979	685,168.5	53,864.9	216,285.4	74,681.2	208,900.5	82,837.4	33,733.5	43,903.9	184,773.1	105,077.6	98,186.6	84,090.1	1,871,502.8
1980	843,054.3	37,855.4	254,140.9	80,956.3	254,285.2	92,798.8	123,858.2	54,363.5	175,891.0	125,041.8	112,452.0	88,819.8	2,243,517.2
1981	764,165.4	35,765.3	211,868.0	76,787.9	211,117.3	66,662.4	43,498.2	47,953.3	172,816.0	106,274.9	93,932.5	80,347.8	1,911,189.0
1982	527,140.5	33,678.5	165,162.3	62,731.9	140,716.9	64,595.2	40,652.5	42,402.1	158,683.5	79,791.7	80,921.4	65,616.9	1,442,093.1
1983	682,418.8	47,694.6	173,792.0	95,121.9	181,986.5	94,661.4	61,076.7	53,866.0	187,546.6	110,774.2	88,950.9	96,304.0	1,874,193.7
1984	869,102.9	53,974.1	344,988.2	103,883.1	231,040.7	122,384.8	64,354.2	78,724.0	220,683.7	134,643.7	113,228.1	93,457.8	2,430,465.3
1985	909,414.0	65,475.3	307,845.3	110,943.8	158,714.8	133,604.4	73,324.5	64,270.9	205,958.1	125,324.8	116,245.1	108,312.8	2,379,433.9
1986	795,053.2	63,184.5	318,802.9	113,404.2	287,687.2	129,569.9	77,779.6	65,677.7	229,947.5	133,948.3	151,443.8	89,466.7	2,455,965.6

Source: MEJ.

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Annex 20: Table 20b

Secondary Education Expenditures by Provinces

(Thousand Australes, 1987)

Year	Buenos Aires	Chaco	Cordoba	Corrientes	Formosa	Jujuy	Mendoza	Misiones	Rio Negro	Santa Fe	Santiago	Salta	Total
1977	114,679.7	n/a	36,125.7	54,662.5	5,968.2	2,937.7	22,628.8	7,280.9	5,522.0	39,643.3	5,897.5	11,953.8	307,100.1
1978	152,375.0	n/a	54,662.5	36,125.7	7,462.0	5,670.5	24,550.2	n/a	7,148.8	50,113.0	6,533.7	15,972.8	360,614.2
1979	165,020.6	22,897.8	62,423.2	54,662.5	9,399.8	5,379.6	23,463.3	12,441.6	7,705.5	51,311.7	7,203.5	17,246.5	439,155.6
1980	200,169.5	27,303.0	80,501.0	62,423.2	12,489.5	7,650.4	27,674.2	12,598.3	9,703.2	60,113.1	7,850.0	n/a	508,476.2
1981	178,271.7	26,350.4	72,420.8	80,501.0	18,669.3	8,446.9	22,503.0	11,090.4	8,903.6	49,280.6	7,175.0	18,922.8	502,545.4
1982	128,621.7	21,987.4	46,567.8	72,420.8	15,376.0	6,951.2	19,462.8	7,732.0	6,737.8	35,141.3	5,623.3	10,852.3	377,494.3
1983	164,903.1	34,775.2	62,743.7	46,567.8	15,907.7	16,075.1	25,531.6	10,862.4	10,404.9	48,981.4	7,887.5	14,947.0	459,587.4
1984	215,743.5	37,234.0	65,862.9	62,743.7	17,575.4	10,833.2	29,223.1	11,927.2	11,943.2	70,202.8	6,654.8	20,838.0	560,791.7
1985	233,598.2	36,247.5	38,678.5	65,862.9	18,821.6	9,733.0	28,711.8	11,756.1	10,725.1	62,864.9	7,835.7	23,181.9	548,017.1
1986	221,116.0	37,307.8	80,500.9	38,678.5	17,166.0	10,490.9	39,845.9	12,448.7	12,438.2	65,707.6	7,517.6	36,077.3	579,295.5

Source: MEJ.

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Annex 20: Table 20c

Higher Education Expenditure by Provinces
(Thousand Australes, 1987)

Year	Buenos Aires	Chaco	Cordoba	Corrientes	Formosa	Jujuy	Mendoza	Misiones	Rio Negro	Santa Fe	Santiago	Salta	Total
1977	14,557.3	0.0	3,175.8	0.0	0.0	0.0	0.0	396.3	530.1	4,574.0	1,010.7	432.2	24,676.4
1978	25,124.3	0.0	4,324.8	0.0	0.0	0.0	0.0	0.0	293.4	6,241.2	1,376.8	740.2	38,100.8
1979	25,933.3	0.0	4,782.3	0.0	0.0	93.8	0.0	744.5	825.1	7,481.0	1,374.3	559.2	41,793.5
1980	31,537.3	0.0	5,928.5	0.0	395.0	115.8	0.0	753.4	742.1	8,495.9	1,700.4	n/a	49,668.4
1981	31,561.6	0.0	4,961.4	0.0	123.0	82.8	0.0	682.7	662.0	7,405.9	1,666.4	2,661.7	49,807.7
1982	24,376.6	0.0	3,056.3	0.0	3.2	109.0	0.0	449.4	436.2	5,540.1	1,305.5	1,563.1	36,839.5
1983	36,813.6	0.0	4,654.0	0.0	0.0	311.4	0.0	706.5	619.1	8,970.7	1,907.5	2,187.1	56,170.0
1984	44,139.5	0.0	4,306.5	0.0	0.0	547.1	0.0	611.1	712.3	12,706.8	1,919.7	2,893.9	67,837.0
1985	52,001.6	0.0	2,497.5	0.0	0.0	981.7	0.0	618.0	580.1	11,929.4	2,022.1	3,674.1	74,274.6
1986	44,090.6	0.0	5,518.1	0.0	4,416.3	1,171.6	0.0	622.6	1,107.1	12,761.0	1,958.4	7,241.8	78,887.6

Source: MEJ.

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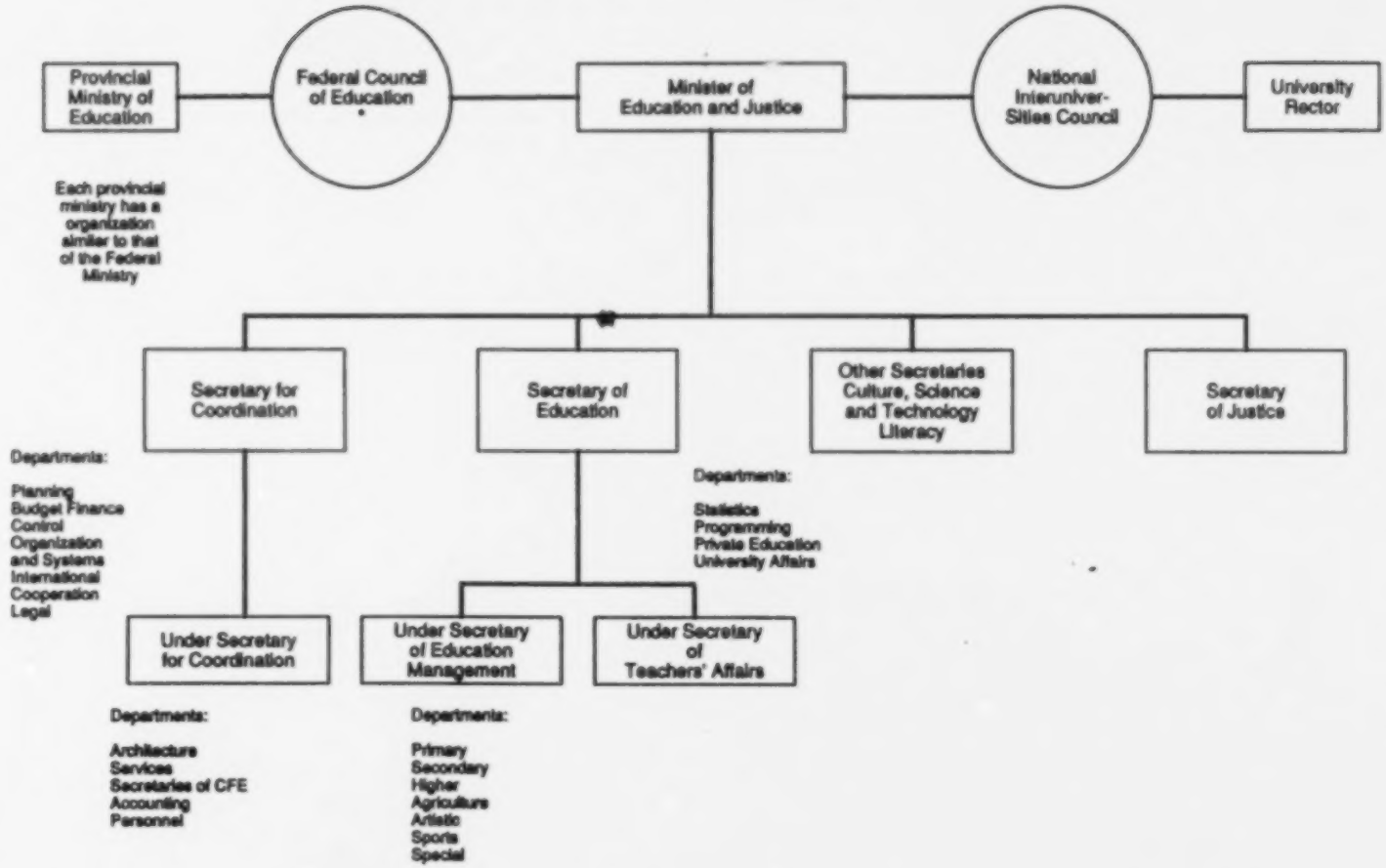
ANNEX 21: EDUCATION SECTOR ORGANIZATION



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